Electronics Letters

INDEX VOLUME 19, 1983

Author index

A

Abdul Karim, M.A.H., and Ibrahim, K.M. see Ibrahim, K.M.
Abebe, M., Villarruel, C.A., and Burns, W.K. see Villarruel, C.A.
Acha, J.I., Ayerbe, A., and Robles-Diaz, R. Modified canonic ladder realisation of IIR digital filters.(Comment) p381
Adams, A.T., Leviatan, Y., Stockmann, P.H., and Meidaner, D.R. see Leviatan, Y.
Adams, M.J. Linewidth of a single mode in a multimode injection laser p652
Adams, M.J., and Osiniski, M. Influence of spectral hole-burning on quaternary laser transients p627
Adams, P.F. Biased Gaussian noise source for digital-transmission-system simulations p549
Adelseck, B., and Solbach, K. see Solbach, K.
Adiga, B.S., and Shankar, P. Simple coding scheme for modular arithmetic p703
Agarwal, A.K., Evers, G., and Unrau, U. New and simple method for selective mode group excitation in graded-index optical fibres p694
Agarwal, A.K., and Unrau, U. Novel component to approximate steady-state mode power distribution in graded-index fibres p57
Agarwal, S.K., Jain, S.C., and Ray, U.C. see Jain, S.C.
Agrawal, G.P., and Dutta, N.K. Effect of Auger recombination on the threshold characteristics of gain-guided InGaAsP lasers p974
Agrawal, J.P., Sudhakar, P., and Bhattacharyya, A.B. Self resonant IDT as a grating reflector of surface acoustic waves p982
Aguilar, M., Loipez-Coronado, M., Martinez, M.T., Calleja, E., and Munnoz, E. see Loipez-Coronado, M.
Agusti-Comes, R., Casadevall-Palacio, F., and Junyent-Giralt, G. Performance of FH-MFSK cellular mobile radio in the presence of nonsynchronous users p1077
Ahmadi, M., Golikeri, S., and Ramchandran, V. see Golikeri, S.
Aihara, T., Okoshi, T., and Kikuchi, K. see Okoshi, T.
Ainslie, B.J., Mitchell, A.F., O'Mahony, M.J., and Marshall, I.W. see Mitchell, A.F.
Ait Mehdi, R., and Anderson, A.P. see Anderson, A.P.
Aitchison, C.S., and Nazoa-Ruiz, N. see Nazoa-Ruiz, N.
Aitchison, C.S., and Riris, A. see Riris, A.
Akademir, A. Enhanced regenerative switching circuit for power transistors p631
Akhlaghi, H., and Eriksson, S. see Eriksson, S.
Akiba, S., Matsushima, Y., Seki, N., Noda, Y., and Kushiro, Y. see Matsushima, Y.
Akiya, H., Mikami, O., Saitoh, T., and Nakagome, H. see Mikami, O.
Akiya, M., Nakashima, S., and Kato, K. see Nakashima, S.
Akiya, M., and Kimura, T. Substrate bias effect for C-MOS operational amplifier using SIMOX technology p36
Alamome, M., Colinge, J.P., Bensahel, D., Haond, M., and Pfister, J.C. see Colinge, J.P.
Alard, F., and Sansonetti, P. Derivation of fundamental-mode electric field and modal properties of single-mode fibres from variable-aperture launch method p313
Alavi, K., Chen, C.Y., Cho, A.Y., Garbinski, P.A., and Pang, Y.M. see Chen, C.Y.
Alavi, K., Pearsall, T.P., Forrest, S.R., and Cho, A.Y. $Ga_{0.47}In_{0.53}As/Al_{0.48}In_{0.52}As$ multi-quantum-well LEDs emitting at 1.6 μm p227
Alexander, S.E. Charactering buildings for propagation at 900 MHz p860
Alexander, S.E., and Motley, A.J. see Motley, A.J.
Alferness, R.C., and Buhl, L.L. Long-wavelength Ti-$LiNbO_3$ waveguide electro-optic TE↔TM convertor p40
Alonso, S., Puigcerver, M., Lorente, J., and Vilar, E. see Puigcerver, M.
Ananda Mohan, P.V., Ramachandran, V., and Swamy, M.N.S. Analysis of SC networks using continuous-time four-port equivalents p1094
Ananda Mohan, P.V., Ramachandran, V., and Swamy, M.N.S. Novel stray-insensitive SC bandpass filter p615
Ananda Mohan, P.V., Ramachandran, V., and Swamy, M.N.S. Terminations for component-simulation-type S C ladder filters p29
Anday, F., and Kabuli, G. see Kabuli, G.
Anderson, A.P., and Ait Mehdi, R. Phase tomography in microwave diagnostics p873
Anderson, R.J., Miller, D.L., Asbeck, P.M., and Eisen, F.H. see Miller, D.L.
Ando, H., Yamauchi, Y., and Susa, N. High-speed planar InP/InGaAs avalanche photodiode fabricated by vapour phase epitaxy p543
Ankri, D., Scavennec, A., Besombes, C., Courbet, C., Riou, J., and Heiliot, F. see Scavennec, A.
Ankri, D., Schaff, W.J., Barnard, J., Lunardi, L., and Eastman, L.F. High-speed GaAs heterojunction bipolar phototransistor grown by molecular beam epitaxy p278
Ankri, D., Schaff, W.J., Smith, P., and Eastman, L.F. High-speed GaAlAs-GaAs heterojunction bipolar transistors with near-ballistic operation p147
Antoniou, A., and Eswaran, C. see Eswaran, C.
Antreasyan, A., and Wang, S. Temperature characteristics of wavelength tuning in separately pumped integrated-etalon-interference lasers p876
Aoki, T., Kasai, R., and Horiguchi, S. Transient characteristics of latch-up in bulk CMOS p758
Aoki, Y., Kishida, S., Honmou, H., Washio, K., and Sugimoto, M. Efficient backward and forward pumping CW Raman amplification for InGaAsP laser light in silica fibres p620
Arai, S., Koyama, F., Tanbun-Ek, T., Wang, S., Suematsu, Y., and Furuya, K. see Koyama, F.
Arai, S., Tohmori, Y., Suematsu, Y., and Tsushima, H. see Tohmori, Y.
Archer, M.J. Inductive twin-strip gratings in incident TE waves p118
Arimoto, S., Yamamoto, H., Hasegawa, H., Ohno, H., and Nanjo, J. see Yamamoto, H.
Arimoto, S., Yamamoto, H., Ohno, H., and Hasegawa, H. a-Si : H MIS position sensitive detector by by anodic oxidation processes p628
Arimoto, S., Yamamoto, H., Sawada, T., Hasegawa, H., and Ohno, H. see Yamamoto, H.
Armand, M., Bui, D.V., Chevrier, J., and Linh, N.T. High-power InP MISFETs p433
Arnaud, J. Quantum mechanical explanation of spontaneous emission K-factor (Comment) p688
Arnaud, J. Theory of spontaneous emission in gain-guided laser amplifiers p798
Arndt, F., and Strube, J. see Strube, J.
Arnold, D., Drummond, T.J., Kopp, W., Fischer, R., Morkoç, H., Erickson, L.P., and Palmberg, P.W. see Drummond, T.J.
Arnold, D., Fischer, R., Thorne, R.E., Drummond, T.J., and Morkoc, H. see Fischer, R.
Asahi, H., Kawamura, Y., Nagia, H., and Ikegami, T.T. see Kawamura. Y.
Asahi, H., Kawamura, Y., Noguchi, Y., Matsuoka, T., and Nagai, H. Hybrid LPE/MBE-grown InGaAsP/InP DFB lasers p507
Asawa, C.K., Lipscomb, G.F., and Downs, J.W. see Lipscomb, G.F.
Asawa, C.K., Yao, S.K., and Lipscomb, G.F. see Yao, S.K.
Asbeck, P.M., Miller, D.L., Anderson, R.J., and Eisen, F.H. see Miller, D.L.
Ash, E.A., Nikoonahad, M., and Sivaprakasapillai, P. see Nikoonahad, M.
Ash, E.A., Nikoonahad, M., and Yue, G.Q. see Nikoonahad, M.
Ashoka, H., and Tucker, R.S. Modes of operation in dual-gate MESFET mixers p428
Ashoka, H., and Tucker, R.S. S-parameter model of dual-gate GaAs MESFET p39
Auge, J., Pocholle, J.P., Raffy, J., and Papuchon, M. see Pocholle, J.P.
Auge, J., and Pocholle, J.P. see Pocholle, J.P.
Aulin, T., Svensson, A., and Sundberg, C.-E. see Svensson, A.
Awano, Y., Tomizawa, K., Hashizume, N., and Kawashima, M. see Tomizawa, K.
Awano, Y., Tomizawa, K., Hashizume, N., and Kawashima, M. Monte Carlo particle simulation of a GaAs short-channel MESFET p20
Ayerbe, A., Acha, J.I., and Robles-Diaz, R. see Acha, J.I.

B

Báez-López, D. Sensitivity behaviour of several two op-amp inverting and noninverting integrators p835
Bachmann, P., Geittner, P., Hübner, H., Leers, D., and Lennartz, M. Material dispersion characteristics of optical fibres prepared by the PCVD process p765
Bachus, E.-J., Braun, R.-P., and Strebel, B. Polarisation-maintaining single-mode-fibre resonator p1027
Bachus, E.J., Böhnke, F., Eutin, W., and Strebel, B. Fibre-optic digital transmission experiment with heterodyne detection p671
Badawi, M.H., Dunbobbin, D.R., and Mun, J. Selective implantation of GaAs for MESFET applications p598
Bagrov, A.M., Vasiliev, A.V., Dianov, E.M., Plotnichenko, V.G., Sysoev, V.K., Baikalov, P.I., Devyatykh, G.G., Scripachev, I.V., and Churbanov, M.F. see Vasiliev, A.V.
Baikalov, P.I., Vasiliev, A.V., Dianov, E.M., Plotnichenko, V.G., Sysoev, V.K., Bagrov, A.M., Devyatykh, G.G., Scripachev, I.V., and Churbanov, M.F. see Vasiliev, A.V.
Baldy, M., Krakowski, M., Hirtz, P., Blondeau, R., Hersee, S.D., de Cremoux, B., and Duchemin, J.P. see Krakowski, M.
Ballard, P.M. Waveguide-bandwidth millimetric mixer with IF to 18 GHz p46
Barber, D.C., Brown, B.H., and Freeston, I.L. Imaging spatial distributions of resistivity using applied potential tomography p933
Barfubbr, H., Eickhoff, W., and Brinkmeyer, E. see Eickhoff, W.
Barlow, A.J., Varnham, M.P., Payne, D.N., and Okamoto, K. see Varnham, M.P.
Barnard, J., Ankri, D., Schaff, W.J., Lunardi, L., and Eastman, L.F. see Ankri, D.
Barrett, N.J., Bensalem, R., and Sealy, B.J. see Bensalem, R.
Bartelt, H.O., Lohmann, A.W., Freude, W., and Grau, G.K. Mode analysis of optical fibres using computer-generated matched filters p247
Bassier, G., Bourret, G., Doll, A., Raffin, G., and Jurczyszyn, M. see Bourret, G.
Bates, R.J.S., Spalink, J.D., Butterfield, S.J., Lipson, J., Burrus, C.A., Lee, T.P., and Logan, R.A. 1.3 μm/1.5 μm bidirectional WDM optical-fibre transmission system experiment at 144 Mbit/s p458
Bayraktaroglu, B., and Shih, H.D. Integral packaging for millitmetre-wave GaAs impatt diodes prepared by molecular beam expitaxy p327
Beales, K.J., Cooper, D.M., and Rush, J.D. Increased attenuation in optical fibres caused by diffusion of molecular hydrogen at room temperature p917
Beales, K.J., Craig, S.P., Dunn, P.L., Rush, J.D., and Smith, D.G. see Craig, S.P.
Becker, R.A., Woodward, C.E., and Leonberger, F.J. 2-bit 1 Gsample/s electro-optic guided-wave analogue-to-digital convertor system p332
Beeckman, P.A. High-precision measurements on a compact antenna test range p769
Beet, S.W., and Goodyear, C.C. Helium speech processor using linear prediction p408
Beker, H.J., Friend, J.M.K., and Halliden, P.W. Simplifying key management in electronic fund transfer point of sale systems p442
Bello, J., and Dyott, R.B. see Dyott, R.B.
Benedek, M., Samid, I., Mirsky, U., and Yusi, M. see Samid, I.
Beneking, H., Roth, W., and Schumacher, H. see Roth, W.
Bensahel, D., Colinge, J.P., Alamome, M., Haond, M., and Pfister, J.C. see Colinge, J.P.
Bensahel, D., Haond, M., Vu, D.P., and Colinge, J.P. Localisation of defects on SOI films via selective recrystallisation using halogen lamps p464
Bensalem, R., Barrett, N.J., and Sealy, B.J. AlN capped annealing of Se and Sn implanted semi-insulating GaAs p112
Benson, F.A., Cudd, P.A., and Tischer, F.J. Solid-state devices in H-guide, groove guide and fence guide p657
Benz, K.W., Eisele, H., and Körber, W. see Eisele, H.
Benz, K.W., Speier, P., Scholz, F., Renz, H., and Weidlein, J. see Speier, P.
Bergman, L.A., Eng, S.T., and Johnston, A.R. Temperature stability of transit time delay for a single-mode fibre in a loose tube cable p865
Besombes, C., Scavennec, A., Ankri, D., Courbet, C., Riou, J., and Heiliot, F. see Scavennec, A.
Beth, T., and Fumy, W. Hardware-oriented algorithms for the fast symbolic calculation of the DFT p901
Bethea, C.G., Pearsall, T.P., and Logan, R.A. see Pearsall, T.P.
Bhagavatula, V.A., Spotz, M.S., Love, W.F., and Keck, D.B. Segmented-core single-mode fibres with low loss and low dispersion p317
Bhattacharya, P.K., and Rao, M.V. see Rao, M.V.

Bhattacharya, P.K., and Tripathi, V.K. Lattice-matched and mismatched multiquantum-well heterostructure photodiodes for operation at 1·1 to 1·5 μm p924

Bhattacharyya, A.B., Agrawal, J.P., and Sudhakar, P. see Agrawal, J.P.

Bhattacharyya, A.B., Singh, S.P., and Prabhakar, A. see Singh, S.P.

Bialkowski, M.E., and Khan, P.J. Determination of admittance of coaxial line/rectangular-waveguide junction p832

Bialkowski, M.E., and Khan, P.J. Driving-point impedance of a linear cylindrical antenna p216

Bialkowski, M.E., and Khan, P.J. Equivalence between circular and rectangular posts in guiding structures p726

Bickers, L. Suppression of bulk modes in SAW transversal filters by gold transducers p121

Biey, M. Design of lowpass two-section generalised FLF active filters p639

Biggin, J.W., Kemp, G., and Hobdell, J. see Kemp, G.

Binet, M., and Meignant, D. see Meignant, D.

Birch, R.D., Ourmazd, A., Varnham, M.P., Payne, D.N., and Tarbox, E.J. see Ourmazd, A.

Birch, R.D., Varnham, M.P., Payne, D.N., and Okamoto, K. Fabrication of a stress-guiding optical fibre p866

Birch, R.D., Varnham, M.P., Payne, D.N., and Tarbox, E.J. see Varnham, M.P.

Birch, R.D., Varnham, M.P., Payne, D.N., and Tarbox, E.J. see Varnham, M.P.

Biswas, A., and Das, B.N. see Das, B.N.

Blackley, W.S., Jack, M.A., and Jordan, J.R. VLSI digital polarity correlator based on an overloading counter technique p761

Blakey, P.A., East, J.R., Elta, M.E., and Haddad, G.I. Implications of velocity overshoot in heterojunction transit-time diodes p510

Bloch, P.D., Doe, N.G., and Paige, E.G.S. Behaviour of device structures based on IDT-launched bulk acoustic waves in a parallel-sided plate of lithium niobate p871

Blondeau, R., Krakowski, M., Hirtz, P., Hersee, S.D., Baldy, M., de Cremoux, B., and Duchemin, J.P. see Krakowski, M.

Blondeau, R., Razeghi, M., Hersee, S., Hirtz, P., deCremoux, B., and Duchemin, J.P. see Razeghi, M.

Blondeau, R., Razeghi, M., Hirtz, P., deCremoux, B., and Duchemin, J.P. see Razeghi, M.

Bloom, D.M., Goldberg, L., Taylor, H.F., and Weller, J.F. see Goldberg, L.

Bloom, D.M., Kolner, B.H., and Cross, P.S. see Kolner, B.H.

Bloom, D.M., and Wang, S.Y. see Wang, S.Y.

Blow, K.J., and Doran, N.J. Bandwidth limits of nonlinear (Soliton) optical communication systems p429

Blum, E.J., Blundell, R., and Gundlach, K.H. see Blundell, R.

Blundell, R., Gundlach, K.H., and Blum, E.J. Practical low-noise quasiparticle receiver for 80-100 GHz p498

Böhnke, F., Bachus, E.J., Eutin, W., and Strebel, B. see Bachus, E.J.

Bösch, M.A., Herbst, D., Lemons, R.A., Tewksbury, S.K., and Harrison, J.R. see Herbst, D.

Böck, G. New multilayered slot-line structures with high nonreciprocity p966

Böhm, K., Marten, P., Weidel, E., and Petermann, K. Direct rotation-rate detection with a fibre-optic gyro by using digital data processing p997

Board, K., and Byrne, D.J. see Byrne, D.J.

Bonewitz, H.U., Heitmann, W., and Mühlich, A. see Heitmann, W.

Booth, R.C., Malyon, D.J., Hodgkinson, T.G., and Smith, D.W. see Malyon, D.J.

Borchert, B., Hofmann, K.R., and Dorda, G. Positive and negative charge generation by hot carries in n-MOSFETs p746

Borge, R. Minimum bandwidth signals with some specified waveform parameters p269

Bornholdt, C., Döldissen, W., Franke, D., Grote, N., Krauser, J., Niggebrügge, U., Nolting, H.P., Schlak, M., and Tiedke, I. Passive optical GaInAsP/InP waveguides p81

Bossdtker, E., Tromborg, B., Mark, J., and Nielsen, C.J. Heterodyne OTDR at 0.82μm p361

Botez, D., Connolly, J.C., Ettenberg, M., and Gilbert, D.B. Very high CW output power and power conversion efficiency from current-confined CDH-LOC diode lasers p882

Boucouvalas, A.C. Use of far-field radiation pattern to characterise single-mode symmetric slab waveguides p120

Bouidene, Y., Favre, F., and Le Guen, D. Simple method for feedback parameter determination in optical feedback controlled semiconductor lasers p1017

Bourret, G., Doll, A., Bassier, G., Raffin, G., and Jurczyszyn, M. 81 km submarine optical repeater trial p1053

Bowers, J.E., Coldren, L.A., Hemenway, B.R., Miller, B.I., and Martin, R.J. 1.55 μm multi-section ridge lasers p523

Bowers, J.E., Hemenway, B.R., and Miller, B.I. see Hemenway, B.R.

Boxall, B.A., Mitchell, A.F., and O'Mahony, M.J. see Mitchell, A.F.

Bragg, N.L., and Macleod, M.D. see Macleod, M.D.

Brain, M.C. Noise and responsivity of commercial p^+n Ge avalanche photodiodes p813

Brassington, M.P., and Duckworth, C.N. Modifications to MOS transistor model CASMOS for increased accuracy of DC simulations of heavily channel-doped n-MOS devices p447

Braun, R.-P., Bachus, E.-J., and Strebel, B. see Bachus, E.-J.

Brinkmeyer, E., Eickhoff, W., and Barfubbr, H. see Eickhoff, W.

Brinkmeyer, E., and Eickhoff, W. Ultimate limit of polarisation-holding in single-mode fibres p996

Bromba, M.V.A., and Ziegler, H. Further results on maximally flat nonrecursive digital filters e30

Brown, B.H., Barber, D.C., and Freeston, I.L. see Barber, D.C.

Brown, R.C., Clarricoats, P.J.B., and Ramanujam, P. Offset spherical dual-reflector antenna p912

Bruels, A.H.E., de Jongi \.G.W.M., Diemeer, M.B.J., and Trommel, L.S. see de Jongh, A.G.W.M.

Bruneel, H. Analysis of buffer behaviour for an integrated voice-data system p72

Bruneel, H.L. Buffers with stochastic output interruptions p735

Bucci, O.M., and Massa, G.Di Sampling approach for fast computation of scattered fields p15

Buhl, L.L. Optical losses in metal/SiO_2-clad Ti : $LiNbO_3$ waveguides p659

Buhl, L.L., and Alferness, R.C. see Alferness, R.C.

Bui, D.V., Armand, M., Chevrier, J., and Linh, N.T. see Armand, M.

Burk, M.J., Tran, D.C., Levin, K.H., Fisher, C.F., and Sigel,Jun., G.H. see Tran, D.C.

Burnham, R.D., Lindström, C., Scifres, D.R., Paoli, T.L., and Streifer, W. see Lindström, C.

Burnham, R.D., Lindström, C., Paoli, T.L., Streifer, W., and Scifres, D.R. see Lindström, C.

Burnham, R.D., Scifres, D.R., Lindström, C., Streifer, W., and Paoli, T.L. see Scifres, D.R.

Burns, W.K., Villarruel, C.A., and Abebe, M. see Villarruel, C.A.

Burns, W.K., and Moeller, R.P. see Moeller, R.P.

Burrus, C.A., Bates, R.J.S., Spalink, J.D., Butterfield, S.J., Lipson, J., Lee, T.P., and Logan, R.A. see Bates, R.J.S.

Burrus, C.A., Campbell, J.C., Copeland, J.A., and Dentai, A.G. see Campbell, J.C.

Burrus, C.A., Lee, T.P., Linke, R.A., and Nelson, R.J. see Lee, T.P.

Burrus, C.A., Lin, Chinlon, Linke, R.A., Kaminow, I.P., Ko, J.S., Dentai, A.G., Logan, R.A., and Miller, B.I. see Lin, Chinlon

Burrus, C.A., Shang, Hen-Tai, and Stone, J. see Shang, Hen-Tai

Burrus, C.A., Wiesenfeld, J.M., Chraplyvy, A.R., and Stone, J. see Wiesenfeld, J.M.

Burt, M.G. Enhanced bandgap resonant nonlinear susceptibility in quantum-well heterostructures p132

Burt, M.G. Gain spectra of quantum-well lasers p210

Bussière, J., Jen, C.K., Farnell, G.W., and Kinsella, R.D. see Jen, C.K.

Butcher, J.B., Das, K., and Shorthouse, G.P. see Das, K.

Butterfield, S.J., Bates, R.J.S., Spalink, J.D., Lipson, J., Burrus, C.A., Lee, T.P., and Logan, R.A. see Bates, R.J.S.

Byrne, D.J., and Board, K. Minimisation of on-resistance of VDMOS power FETs p519

C

Cacopardi, S. Applicability of the relay correlator to radar signal processing p722

Calleja, E., Loipez-Coronado, M., Aguilar, M., Martinez, M.T., and Munnoz, E. see Loipez-Coronado, M.

Campbell, J.C. Digital radio outage prediction with space diversity p1003

Campbell, J.C., Burrus, C.A., Copeland, J.A., and Dentai, A.G. Wavelength-discriminating photodetector for lightwave systems p672

Campbell, J.C., Dentai, A.G., Holden, W.S., and Kasper, B.L. High-performance avalanche photodiode with separate absorption 'grading' and multiplication regions p818

Cancellieri, G. Attenuation measurements on single pieces of fibre and extrapolation over longer distances e355

Capasso, F., Hayes, J.R., Gossard, A.C., Malik, R.J., and Wiegmann, W. see Hayes, J.R.

Carpenter, R.B.P., Walker, S.D., and Cochrane, P. see Walker, S.D.

Carroll, J.E., White, I.H., and Plumb, R.G. see White, I.H.

Carroll, J.E., and Herscher, B.A. see Herscher, B.A.

Carroll, J.E., and White, I.H. see White, I.H.

Carruthers, T.F., and Weller, J.F. Triggering pulse durations in transferred electron devices p955

Carter, R.L., Chang, KokWai, and Owens, J.M. see Chang, KokWai

Casadevall-Palacio, F., Agusti-Comes, R., and Junyent-Giralt, G. see Agusti-Comes, R.

Cassidy, S.A., Kashyap, R., Hornung, S., and Reeve, M.H. see Kashyap, R.

Cataltepe, T., Orchard, H.J., and Temes, G.C. see Orchard, H.J.

Ceruzzi, A.D. High-performance single-mode AlGaAs Gaussian channel substrate planar laser diodes p1

Cham, W.K. Family of order-4 four-level orthogonal transforms p869

Chamberlain, J.K., and Price, A.J. Improved agile notch adaptive equaliser p785

Chan Wong, S.W., and Wilson, M.G.F. see Wilson, M.G.F.

Chang, K., Tahim, R.S., and Hayashibara, G.M. see Tahim, R.S.

Chang, KokWai, Owens, J.M., and Carter, R.L. Linearly dispersive time-delay control of magnetostatic surface wave by variable ground-plane spacing p546

Chao, P.C., Yu, T., Smith, P.M., Wanuga, S., Hwang, J.C.M., Perkins, W.H., Lee, H., Eastman, L.F., and Wolf, E.D. Quarter-micron gate length microwave high electron mobility transistor p894

Chaoui, R., and Tuck, B. see Tuck, B.

Chapman, J.E., and Wu, D. Single-mode-fibre cutoff measurements using offset splice technique : excess loss effects p290

Chapman, R., Durrani, T.S., and Willey, T. see Durrani, T.S.

Chatterjee, P.K., Malhi, S.D.S., Shah, R.R., Shichijo, H., Pinizzotto, R.F., Chen, C.E., and Lam, H.W. see Malhi, S.D.S.

Chen, C.E., Malhi, S.D.S., Shah, R.R., Shichijo, H., Pinizzotto, R.F., Chatterjee, P.K., and Lam, H.W. see Malhi, S.D.S.

Chen, C.Y., Alavi, K., Cho, A.Y., Garbinski, P.A., and Pang, Y.M. New $Ga_{0.47}In_{0.53}As$ sheet-charge field-effect transistor for long-wavelength optoelectronic integration p791

Chen, C.Y., Pang, Y.M., and Garbinski, P.A. see Pang, Y.M.

Chen, P.Y.P. Prediction of mode dispersion in graded-index single-mode fibres p880

Cheung, N.K., Tomita, A., and Duff, D.G. see Tomita, A.

Chevrier, J., Armand, M., Bui, D.V., and Linh, N.T. see Armand, M.

Chew, N.G., Griffiths, R.J.M., Cullis, A.G., and Joyce, G.C. see Griffiths, R.J.M.

Chiang, K.S., and Chung, P.S. see Chung, P.S.

Chiba, K., and Kanmuri, N. GaAs FET power amplifier module with high efficiency p1025

Chikama, T., Kuwahara, H., and Nakagami, T. see Kuwahara, H.

Cho, A.Y., Alavi, K., Pearsall, T.P., and Forrest, S.R. see Alavi, K.

Cho, A.Y., Chen, C.Y., Alavi, K., Garbinski, P.A., and Pang, Y.M. see Chen, C.Y.

Cho, A.Y., Klem, J., Fischer, R., Drummond, T.J., and Morkocced, H. see Klem, J.

Choi, H.K., and Wang, S. GaAs/GaAlAs active-passive-interference laser p302

Chraplyvy, A.R., Wiesenfeld, J.M., Stone, J., and Burrus, C.A. see Wiesenfeld, J.M.

Chraplyvy, A.R., and Henry, P.S. Performance degradation due to stimulated Raman scattering in wavelength-division-multiplexed optical-fibre systems p641

Chraplyvy, A.R., and Stone, J. see Stone, J.

Christou, A., and Papanicolaou, N.A. see Papanicolaou, N.A.

Christou, A., and Tseng, W.F. see Tseng, W.F.

Chu, P.L., and Desem, C. Gaussian pulse propagation in nonlinear optical fibre p956

Chubachi, N., Kushibiki, J., and Horii, K. see Kushibiki, J.

Chubachi, N., Kushibiki, J., and Matsumoto, Y. see Kushibiki, J.

Chung, P.S., and Chiang, K. STE_0-TM_0 mode degeneracy in anisotropic waveguides with non-symmetric isotropic claddings p45

Chung, P.S., and Chiang, K.S. Degeneracy conditions in anisotropic waveguides with isotropic claddings p220

Churbanov, M.F., Vasiliev, A.V., Dianov, E.M., Plotnichenko, V.G., Sysoev, V.K., Bagrov, A.M., Baikalov, P.I., Devyatykh, G.G., and Scripachev, I.V. see Vasiliev, A.V.

Citerne, J., Helard, M., Picon, O., and Fouad-Hanna, V. see Helard, M.

Clarke, R.J. Application of sine transform in image processing p490

Clarke, R.J. Performance of Karhunen-Loève and discrete cosine transforms for data having widely varying values of intersample correlation coefficient p251

Clarricoats, P.J.B., Brown, R.C., and Ramanujam, P. see Brown, R.C.

Cochrane, P., Walker, S.D., and Carpenter, R.B.P. see Walker, S.D.

Coldren, L.A., Bowers, J.E., Hemenway, B.R., Miller, B.I., and Martin, R.J. see Bowers, J.E.

Colinge, J.P., Bensahel, D., Alamome, M., Haond, M., and Pfister, J.C. Growth of large areas of grain boundary-free silicon-on-insulator p985

Colinge, J.P., Bensahel, D., Haond, M., and Vu, D.P. see Bensahel, D.

Collins, J.V., and Henning, I.D. see Henning, I.D.

Connolly, J.C., Botez, D., Ettenberg, M., and Gilbert, D.B. see Botez, D.

Connor, F.R. New monopulse tracking radar p438

Considine, V. Digital complex sampling p608

Conway, G.L., McAllister, M.W., and Long, S.A. see McAllister, M.W.

Coon, D.D., Gunapala, S., Karunasiri, R.P.G., and Muehlhoff, H.-M. Integrating infra-red detector with electronically modulated response p1070

Coon, D.D., and Karunasiri, R.P.G. Effect of electric fields on long-wavelength response of infrared detectors p284
Cooper, D.C., and Rogers, P. Design of recursive filters to simulate clutter for the evaluation of radar MTI processors p47
Cooper, D.M., Beales, K.J., and Rush, J.D. see Beales, K.J.
Copeland, J.A., Campbell, J.C., Burrus, C.A., and Dentai, A.G. see Campbell, J.C.
Copeland, M.A., and Lam, K.K.K. see Lam, K.K.K.
Coppa, G., Di Vita, P., and Rossi, U. Characterisation of single-mode fibres by near-field measurement p293
Coppa, G., Di Vita, P., and Rossi, U. Joint-loss dependance on mismatch parameters in graded-index optical fibres p654
Coppa, G., and Di Vita, P. Multiquartic approximation in single-mode optical fibres p430
Coppa, G., Di Vita, P., Potenza, M., and Rossi, U. Near-field measurements in monomode fibres: determination of chromatic dispersion p731
Corke, M., Kersey, A.D., Jackson, D.A., and Jones, J.D.C. see Kersey, A.D.
Corke, M., Kersey, A.D., Jackson, D.A., and Jones, J.D.C. All-fibre 'Michelson' thermometer p471
Corke, M., Kersey, A.D., and Jackson, D.A. see Kersey, A.D.
Costa, B., Puleo, M., and Vezzoni, E. Phase-shift technique for the measurement of chromatic dispersion in single-mode optical fibres using LEDs p1074
Courbet, C., Scavennec, A., Ankri, D., Besombes, C., Riou, J., and Heiliot, F. see Scavennec, A.
Cowan, C.F.N., and Rutter, M.J. see Rutter, M.J.
Craig, S.P., Dunn, P.L., Rush, J.D., Smith, D.G., and Beales, K.J. Simultaneous multilevel proof-testing of high-strength silica fibre p516
Crawford, D.I., and Pearson, D.E. Structure of spatio-temporal prefilters for conditional-replenishment video coders p55
Crombach, U. Complex waves on shielded lossless rectangular dielectric image guide p557
Crone, G.A.E., and Roederer, A.G. Simplified linearly polarised contoured beam reflector antenna for a European coverage requirement p720
Cross, P.S., Kolner, B.H., and Bloom, D.M. see Kolner, B.H.
Cross, P.S., and Newton, S.A. see Newton, S.A.
Cudd, P.A., Benson, F.A., and Tischer, F.J. see Benson, F.A.
Cullis, A.G., Griffiths, R.J.M., Chew, N.G., and Joyce, G.C. see Griffiths, R.J.M.
Culshaw, B., Giles, I.P., Uttam, D., and Davies, D.E.N. see Giles, I.P.
Curran, J.E., and Hing, L.A. see Hing, L.A.
Current, K.W., and Freitas, D.A. see Freitas, D.A.
Curtins, H., Max, J.J., and Shah, A.V. Step response of lossless parabolic transmission line p755

D

da Rocha, V.C. Efficient burst-correcting cyclic codes p44
D'Elia, G., Leone, G., and Pierri, R. Probe correction in the near field measurements by pseudo-sampling technique p856
D'Ouville, T.Ternisien, Vu, D.P., Haond, M., Perio, A., and Mingam, H. see Vu, D.P.
Damen, T.C., Duguay, M.A., Miller, B.I., and Lin, C. Single-mode semiconductor laser optically pumped by an injection laser p3
Daniel, J.P., and Penard, E. see Penard, E.
Danielsen, P. Simple power spectrum of microbendings in single-mode fibres p318
Danielsen, P., and Nicolaisen, E. see Nicolaisen, E.
Das, B.N., and Biswas, A. Excitation of multimode guide by stripline-fed slots e309
Das, K., Shorthouse, G.P., and Butcher, J.B. Carrier lifetimes in silicon epitaxial layers deposited on oxygen-implanted substrates p139
Datar, R.B., and Sedra, A.S. Exact design of strays-insensitive switched-capacitor highpass ladder filters p1010
Davidson, H., Maras, A.M., and Holt, A.G.J. see Maras, A.M.
Davidson, K.W., and Morgan, G.B. see Morgan, G.B.
Davies, D.E.N., Giles, I.P., Uttam, D., and Culshaw, B. see Giles, I.P.
Davies, P.A., and Shaar, A.A. see Shaar, A.A.
Davies, P.A., and Shaar, A.A. Asynchronous multiplexing for an optical-fibre local-area network p390
De Buck, F., Taoud, M.A., and Spronck, F. see Taoud, M.A.
de Cremoux, B., Krakowski, M., Hirtz, P., Blondeau, R., Hersee, S.D., Baldy, M., and Duchemin, J.P. see Krakowski, M.
de Cremoux, B., Razeghi, M., Hersee, S., Hirtz, P., Blondeau, R., and Duchemin, J.P. see Razeghi, M.
de Cremoux, B., Razeghi, M., Hirtz, P., Blondeau, R., and Duchemin, J.P. see Razeghi, M.
de Jongh, A.G.W.M., Diemeer, M.B.J., Trommel, E.S., and Bruels, A.H.E. Simple fibre-optic sensor for detecting water penetration into optical fibre cables p980
de Vrieze, H.M., Khoe, G.D., and Poulissen, J. see Khoe, G.D.
DeWinter, J.C., Kaminow, I.P., Stulz, L.W., Ko, J.-S., Miller, B.I., Feldman, R.D., and Pollack, M.A. see Kaminow, I.P.
Defranould, P. Surface-acoustic waves bandpass filters on ZnO/Pyrex substrate with zero temperature coefficient p823
Degrauwe, M.G., and Sansen, W.M.C. Novel adaptive biasing amplifier p92
Delagebeaudeuf, D., and Urien, P. see Urien, P.
Demoment, G., and Segalen, A. Adèle, a fast sub-optimal estimator for real-time deconvolution p86
Denis, H., Valette, S., Lizet, J., Mottier, P., Jadot, J.P., Renard, S., Fournier, A., Grouillet, A.M., and Gidon, P. see Valette, S.
Denman, E.D., and Leyva-Ramos, J. see Leyva-Ramos, J.
Dentai, A.G., Campbell, J.C., Burrus, C.A., and Copeland, J.A. see Campbell, J.C.
Dentai, A.G., Campbell, J.C., Holden, W.S., and Kasper, B.L. see Campbell, J.C.
Dentai, A.G., Lin, Chinlon, Burrus, C.A., Linke, R.A., Kaminow, I.P., Ko, J.S., Logan, R.A., and Miller, B.I. see Lin, Chinlon
Depey, M., and Roulston, D.J. see Roulston, D.J.
Desem, C., and Chu, P.L. see Chu, P.L.
Desmedt, Y., Vandewalle, J., and Govaerts, R. Linear algebra and extended mappings generalise public key cryptographic knapsack algorithms p379
Desurvire, E., Papuchon, M., Pocholle, J.P., Raffy, J., and Ostrowsky, D.B. High-gain optical amplification of laser diode signal by Raman scattering in single-mode fibres p751
Devlin, W.J., and Wyatt, R. see Wyatt, R.
Devyatykh, G.G., Vasiliev, A.V., Dianov, E.M., Plotnichenko, V.G., Sysoev, V.K., Bagrov, A.M., Baikalov, P.I., Scripachev, I.V., and Churbanov, M.F. see Vasiliev, A.V.
Dhariwal, S.R., and Gadre, R. Analysis of efficiency limitations in high-low emitter back surface field silicon solar cells (comment) d103
di Mambro, P.H., and Fidler, J.K. see Fidler, J.K.
di Mambro, P.H. Calculating transfer function and its first- and second-order sensitivities using one network analysis p421
Di Vita, P., Coppa, G., Potenza, M., and Rossi, U. see Coppa, G.
Di Vita, P., Coppa, G., and Rossi, U. see Coppa, G.
Di Vita, P., and Coppa, G. see Coppa, G.
Dianov, E.M., Vasiliev, A.V., Plotnichenko, V.G., Sysoev, V.K., Bagrov, A.M., Baikalov, P.I., Devyatykh, G.G., Scripachev, I.V., and Churbanov, M.F. see Vasiliev, A.V.
Diemeer, M.B.J., de Jongh, A.G.W.M., Trommel, E.S., and Bruels, A.H.E. see de Jongh, A.G.W.M.
Diligenti, A., and Stagi, M. Tunnelling in alluminium/aluminium-oxide/palladium junctions : hydrogen-induced variations p717
Dimitriou, P., Post, G., Scavennec, A., Duhamel, N., and Mircea, A. see Post, G.
Dintelmann, F., and Rücker, F. see Rücker, F.
Dix, C., Westbrook, L.D., and Nelson, A.W. see Westbrook, L.D.
Döldissen, W., Bornholdt, C., Franke, D., Grote, N., Krauser, J., Niggebrügge, U., Nolting, H.P., Schlak, M., and Tiedke, I. see Bornholdt, C.
Doe, N.G., Bloch, P.D., and Paige, E.G.S. see Bloch, P.D.
Doll, A., Bourret, G., Bassier, G., Raffin, G., and Jurczyszyn, M. see Bourret, G.
Doran, N.J., and Blow, K.J. see Blow, K.J.
Dorda, G., Borchert, B., and Hofmann, K.R. see Borchert, B.
Doro, G., Saitto, A., Patel, D., and Trombetta, B. see Saitto, A.
Dortu, J.M., and Kohn, E. see Kohn, E.
Downs, J.W., Lipscomb, G.F., and Asawa, C.K. see Lipscomb, G.F.
Dragone, C. Unique reflector arrangement with very wide field of view for multibeam antennas p1061
Drummond, T.J., Fischer, R., Arnold, D., Thorne, R.E., and Morkoc, H. see Fischer, R.
Drummond, T.J., Fischer, R., Kopp, W., Morkocced, H., Lee, K., and Shur, M.S. see Fischer, R.
Drummond, T.J., Klem, J., Fischer, R., Morkocced, H., and Cho, A.Y. see Klem, J.
Drummond, T.J., Kopp, W., Arnold, D., Fischer, R., Morkoç, H., Erickson, L.P., and Palmberg, P.W. Enhancement-mode metal/(Al, Ga)As/GaAs buried-interface field-effect transistor (BIFET) p986
Dubost, G. Contribution to the understanding of pattern coverage of an open-circuited microstrip wraparound antenna acting at half-wavelength resonance p505
Dubost, G. Far field radiated by short-circuited microstrip antenna acting at a quarter-wavelength resonance p737
Duchemin, J.P., Krakowski, M., Hirtz, P., Blondeau, R., Hersee, S.D., Baldy, M., and de Cremoux, B. see Krakowski, M.
Duchemin, J.P., Razeghi, M., Hersee, S., Hirtz, P., Blondeau, R., and de Cremoux, B. see Razeghi, M.
Duchemin, J.P., Razeghi, M., Hirtz, P., Blondeau, R., and deCremoux, B. see Razeghi, M.
Duckworth, C.N., and Brassington, M.P. see Brassington, M.P.
Duff, D.G., Tomita, A., and Cheung, N.K. see Tomita, A.
Duguay, M.A., Damen, T.C., Miller, B.I., and Lin, C. see Damen, T.C.
Duhamel, N., Post, G., Dimitriou, P., Scavennec, A., and Mircea, A. see Post, G.
Dunbobbin, D.R., Badawi, M.H., and Mun, J. see Badawi, M.H.
Duncan, G., and Jack, M.A. Residually excited LPC processor for enhancing helium speech intelligibility p710
Dunn, P.L., Craig, S.P., Rush, J.D., Smith, D.G., and Beales, K.J. see Craig, S.P.
Durrani, T.S., Chapman, R., and Willey, T. Systolic processor for computing the Wigner distribution p476
Dutta, N.K., and Agrawal, G.P. see Agrawal, G.P.
Dyott, R.B., and Bello, J. Polarisation-holding directional coupler made from elliptically cored fibre having a D section p601

E

East, J.R., Blakey, P.A., Elta, M.E., and Haddad, G.I. see Blakey, P.A.
Eastman, L.F., Ankri, D., Schaff, W.J., Barnard, J., and Lunardi, L. see Ankri, D.
Eastman, L.F., Ankri, D., Schaff, W.J., and Smith, P. see Ankri, D.
Eastman, L.F., Chao, P.C., Yu, T., Smith, P.M., Wanuga, S., Hwang, J.C.M., Perkins, W.H., Lee, H., and Wolf, E.D. see Chao, P.C.
Eastman, L.F., Hsieh, K.H., Ohno, H., and Wicks, G. see Hsieh, K.H.
Eastman, L.F., Kohn, E., Magarshack, J., and Mishra, U. see Kohn, E.
Edahiro, T., Kawachi, M., and Yasu, M. see Kawachi, M.
Edenhofer, P., and Krug, J. see Krug, J.
Edwards, J.L., and Roedel, R.J. Use of a sputtered SiO_2 coating for surface protection during 'leaky tube' diffusion of Zn into GaAs p962
Egami, S., Kawai, M., and Suzuki, K. see Kawai, M.
Egan, B., Rowe, G.B., and Williamson, A.G. see Rowe, G.B.
Eickhoff, W., Brinkmeyer, E., and Barfubbr, H. Direct observation of visibility curve of semiconductor lasers p739
Eickhoff, W., and Brinkmeyer, E. see Brinkmeyer, E.
Eisele, H., Körber, W., and Benz, K.W. $In_{0.53}Ga_{0.47}As$ liquid phase epitaxy on (100)-InP substrates at low growth temperatures p1035
Eisen, F.H., Miller, D.L., Asbeck, P.M., and Anderson, R.J. see Miller, D.L.
Eisenstein, G., Tucker, R.S., and Kaminow, I.P. see Tucker, R.S.
El-Morsy, M.A.A., Parker, E.A., and Langley, R.J. 4-layer inductive grid FSS at 45° incidence p602
Elliott, A.G., Pearton, S.J., and Haller, E.E. see Pearton, S.J.
Ellison, B.N., and Vizard, D.R. 230-271 GHz cryogenic radiometer p586
Elsässer, W., and Göbel, E.O. Einstein relations for gain-guided semiconductor lasers p335
Elta, M.E., Blakey, P.A., East, J.R., and Haddad, G.I. see Blakey, P.A.
Ely, S.R., Wright, D.T., and Goodyear, C.C. High-speed decoding technique for slip detection in data transmission systems using modified cyclic block codes p109
Eng, S.T., Bergman, L.A., and Johnston, A.R. see Bergman, L.A.
Enomoto, T., Ishihara, T., Yasumoto, M., and Watanabe, K. Integrated MOS offset error canceller for analogue adaptive transversal filter p968
Erickson, L.P., Drummond, T.J., Kopp, W., Arnold, D., Fischer, R., Morkoç, H., and Palmberg, P.W. see Drummond, T.J.
Erickson, L.P., Mattord, T.J., Palmberg, P.W., and Fischer, R. Growth of $Al_{0.3}Ga_{0.7}As$ by molecular beam epitaxy in the forbidden temperature range using As_2 p632
Eriksrud, M., Mickelson, A.R., and Ryen, N. Length dependence of optical fibre bandwidth p994
Eriksson, S., and Akhlaghi, H. Noninverting parasitic-compensated bilinear SC integrator with only one amplifier p450
Eris, E., and Miller, D.M. Syndrome-testable internally unate combinational networks p637
Eswaran, C., and Antoniou, A. Universal multiple-output second-order digital filter p683
Ettenberg, M., Botez, D., Connolly, J.C., and Gilbert, D.B. see Botez, D.
Eutin, W., Bachus, E.J., Böhnke, F., and Strebel, B. see Bachus, E.J.
Evans, J.S., Nelson, A.W., and Westbrook, L.D. see Nelson, A.W.
Evers, G., Agarwal, A.K., and Unrau, U. see Agarwal, A.K.

F

Fabian, W., Heaton, J.L., Spooner, F., and Kraemer, E.H. see Heaton, J.L.

Fabre, A. Dual translinear voltage/current convertor p1030
Faria, I.F., Ghatak, A.K., Srivastava, R., Thyagarajan, K., and Tiwari, R. see Ghatak, A.K.
Faridian, F., and Wickramasinghe, H.K. Simultaneous scanning optical and acoustic microscopy p159
Farnell, G.W., Jen, C.K., Kinsella, R.D., and Bussière, J. see Jen, C.K.
Farren, J., Sanderson, T.K., Mapper, D., and Stephen, J.H. see Sanderson, T.K.
Farries, M.C., and Rogers, A.J. Temperature dependence of the Kerr effect in a silica optical fibre p890
Fattah, H.A., and Wang, S. Electrical tuning of semiconductor interferometric laser p926
Faulkner, E.A. Improved method of digital/analogue and analogue/digital conversion p896
Favre, F., Bouidene, Y., and Le Guen, D. see Bouidene, Y.
Favre, F., and Le Guen, D. Autostabilisation technique for achieving highly stable resonant optical feedback in a fibre resonator loaded injection laser p1046
Favre, F., and leGuen, D. Emission frequency stability in single-mode-fibre optical feedback controlled semiconductor lasers p663
Feldman, R.D., Kaminow, I.P., Stulz, L.W., Ko, J.-S., Miller, B.I., De Winter, J.C., and Pollack, M.A. see Kaminow, I.P.
Fiddyment, P.J., Westbrook, L.D., and Nelson, A.W. see Westbrook, L.D.
Fidler, J.K., and di Mambro, P.H. Comment and reply on Calculating transfer function and its first- and second-order sensitivities using one network analysis p914
Fielder, H.L., and Zimmer, G. 6-bit 25MHz NMOS parallel A/D convertor p348
Fischer, G., and Moschytz, G.S. SC integrator for high-frequency applications p495
Fischer, R., Arnold, D., Thorne, R.E., Drummond, T.J., and Morkoc, H. Light sensitivity of $Al_{0.25}Ga_{0.75}As/GaAs$ modulation-doped structures grown by molecular beam epitaxy: effect of substrate temperature p200
Fischer, R., Drummond, T.J., Kopp, W., Arnold, D., Morkoç, H., Erickson, L.P., and Palmberg, P.W. see Drummond, T.J.
Fischer, R., Drummond, T.J., Kopp, W., Morkocced, H., Lee, K., and Shur, M.S. Instabilities in modulation doped field-effect transistors (MODFETs) at 77 K p789
Fischer, R., Erickson, L.P., Mattord, T.J., and Palmberg, P.W. see Erickson, L.P.
Fischer, R., Klem, J., Drummond, T.J., Morkocced, H., and Cho, A.Y. see Klem, J.
Fischer, R., Su, S.L., Lyons, W.G., Tejayadi, O., Kopp, W., Morkoc, H., Mclevige, W., and Yuan, H.T. see Su, S.L.
Fisher, C.F., Tran, D.C., Levin, K.H., Burk, M.J., and SigelJun., G.H. see Tran, D.C.
Fjeldly, T.A., and Johannessen, J.S. Negative differential resistance in GaAs MESFETs p649
Forrest, S.R., Alavi, K., Pearsall, T.P., and Cho, A.Y. see Alavi, K.
Fortier, P., and Huynh, H.T. see Huynh, H.T.
Foster, D.J. Subthreshold currents in CMOS transistors made on oxygen-implanted silicon p684
FouadHanna, V., Helard, M., Citerne, J., and Picon, O. see Helard, M.
Fourcin, A.J., and Howard, D.M. see Howard, D.M.
Fournier, A., Valette, S., Lizet, J., Mottier, P., Jadot, J.P., Renard, S., Grouillet, A.M., Gidon, P., and Denis, H. see Valette, S.
Fox, M., and Stannard-Powell, S.J. Attenuation changes in optical fibres due to hydrogen p916
Franaszek, P.A., and Widmer, A.X. see Widmer, A.X.
Francois, P.L. Finite cladding effects in W-fibres: a new interpretation of leakage losses p173
Francois, P.L. Propagation mechanisms in quadruple-clad fibres: mode coupling, dispersion, pure bend losses p885
Franke, D., Bornholdt, C., Döldissen, W., Grote, N., Krauser, J., Niggebrügge, U., Nolting, H.P., Schlak, M., and Tiedke, I. see Bornholdt, C.
Freeston, I.L., Barber, D.C., and Brown, B.H. see Barber, D.C.
Freitas, D.A., and Current, K.W. CMOS current comparator circuit p695
Frensley, W.R., Saunier, P., and Kim, B. see Saunier, P.
Freude, W., Bartelt, H.O., Lohmann, A.W., and Grau, G.K. see Bartelt, H.O.
Friebele, E.J. Effect of nuclear radiation on Selfoc microlenses p972
Friend, J.M.K., Beker, H.J., and Halliden, P.W. see Beker, H.J.
Fujii, T., Yamakoshi, S., Sanada, T., Wada, O., and Sakurai, T. see Yamakoshi, S.
Fujikawa, K., Higuchi, H., Oomura, E., Hirano, R., Sakakibara, Y., Namizaki, H., and Susaki, W. see Higuchi, H.
Fujita, O., Nakano, Y., Fukuda, M., Sudo, H., and Iwane, G. see Nakano, Y.
Fukuda, M., Ikegami, T., Takahei, K., and Kuroiwa, K. see Ikegami, T.
Fukuda, M., Nakano, Y., Sudo, H., Fujita, O., and Iwane, G. see Nakano, Y.
Fukumitsu, O., and Takenaka, T. see Takenaka, T.
Fukuoka, Y., and Itoh, T. Slow-wave propagation on MIS periodic coplanar waveguide p37
Fukushima, A., Takahashi, N.S., Sasaki, T., and Kurita, S. see Takahashi, N.S.
Fumy, W., and Beth, T. see Beth, T.
Furuse, T., Ueno, M., Kawano, H., and Sakuma, I. see Ueno, M.
Furuya, K., Koyama, F., Tanbun-Ek, T., Arai, S., Wang, S., and Suematsu, Y. see Koyama, F.
Furuya, K., Sugou, S., Kameyama, A., Katsuda, H., Miyamoto, Y., and Suematsu, Y. see Sugou, S.
Furuyama, H., Okuda, H., Hirayama, Y., Kinoshita, J., and Uematsu, Y. see Okuda, H.
Fuse, T., Kokubun, Y., Suzuki, S., Uehara, H., Iga, K., Oikawa, M., and Misawa, S. see Kokubun, Y.

G

Gadre, R., and Dhariwal, S.R. see Dhariwal, S.R.
Gaitanis, N. Totally self-checking checker for 3N arithmetic codes p685
Garbinski, P.A., Chen, C.Y., Alavi, K., Cho, A.Y., and Pang, Y.M. see Chen, C.Y.
Garbinski, P.A., Pang, Y.M., and Chen, C.Y. see Pang, Y.M.
Garcia-Lopez, J.A., and Peiro, J. Simple rain-attenuation-prediction technique for terrestrial radio links p879
Gardiol, F., Sphicopoulos, T., and Teodoridis, V. see Sphicopoulos, T.
Garg, Ramesh, and Rao, K.V.S. Dual frequency microstrip antenna p357
Gautam, J.K., Meguro, T., and Yamanouchi, K. 1·03 GHz operation of a low-loss SAW filter using 3-phase unidirectional transducers with thin dielectric layered feed electrodes p1042
Gautam, J.K., Meguro, T., and Yamanouchi, K. Low-loss unidirectional SAW filters using integrated microinductors p858
Gautam, J.K., Yamanouchi, K., and Meguro, T. see Yamanouchi, K.
Geittner, P., Bachmann, P., Hübner, H., Leers, D., and Lennartz, M. see Bachmann, P.
Geshiro, M., and Sawa, S. Loss reduction in curved dielectric optical slab waveguide p321
Ghatak, A.K., Srivastava, R., Faria, I.F., Thyagarajan, K., and Tiwari, R. Accurate method for characterising single-mode fibres: theory and experiment p97
Ghione, G., and Naldi, C. Parameters of coplanar waveguides with lower ground plane p734
Gidon, P., Valette, S., Lizet, J., Mottier, P., Jadot, J.P., Renard, S., Fournier, A., Grouillet, A.M., and Denis, H. see Valette, S.
Gilbert, D.B., Botez, D., Connolly, J.C., and Ettenberg, M. see Botez, D.
Giles, I.P., Uttam, D., Culshaw, B., and Davies, D.E.N. Coherent optical-fibre sensors with modulated laser sources p14
Gillespie, A.R., and Schulz, A. Fundamental mode waveguide at submillimetre wavelengths p440
Gilliland, J.D., and Thorpe, W. see Thorpe, W.
Glen, P.J. Simple low-cost correlator and multiplier circuits e30
Glew, R.W., and Tayrani, R. see Tayrani, R.
Göbel, E.O., Veith, G., and Kuhl, J. see Veith, G.
Göbel, E.O., and Elsässer, W. see Elsässer, W.
Gold, M.P., and Hartog, A.H. Ultra-long-range OTDR in single-mode fibres at 1.3 μm p463
Goldberg, L., Rauscher, C., Weller, J.F., and Taylor, H.F. Optical injection locking of X-band FET oscillator using coherent mixing of GaAlAs lasers p848
Goldberg, L., Taylor, H.F., Weller, J.F., and Bloom, D.M. Microwave signal generation with injection-locked laser diodes p491
Golikeri, S., Ahmadi, M., and Ramchandran, V. Design of 2-D recursive digital filters satisfying prescribed magnitude and constant group delay response p9
Gongli, Zhang Parameter spectrum in spectral multiple-valued logic design p199
Goodberlet, M., Lee, D.L., and Vetelino, J.F. Temperature stability of surface-generated bulk waves p740
Goodfellow, R.C., and Walker, R.G. see Walker, R.G.
Goodwin, M., and Stewart, C. Proton-exchanged optical waveguides in Y-cut lithium niobate p223
Goodyear, C.C., Ely, S.R., and Wright, D.T. see Ely, S.R.
Goodyear, C.C., and Beet, S.W. see Beet, S.W.
Gossard, A.C., Hayes, J.R., Capasso, F., Malik, R.J., and Wiegmann, W. see Hayes, J.R.
Goswami, P.K., and Sitch, J.E. New technique for semiconductor device modelling p1087
Govaerts, R., Desmedt, Y., and Vandewalle, J. see Desmedt, Y.
Govil, K.K. Proposing a new backward solar cell p395
Grant, P.M., and Rutter, M.J. see Rutter, M.J.
Grau, G.K., Bartelt, H.O., Lohmann, A.W., and Freude, W. see Bartelt, H.O.
Griffin, E.J., Slack, G.J., and Hill, L.D. Broadband six-port reflectometer junction p921
Griffiths, R.J.M., Chew, N.G., Cullis, A.G., and Joyce, G.C. Structure of GaAs-$Ga_{1-x}Al_xAs$ superlattices grown by metal-organic chemical vapour deposition p988
Grimble, M.J. System models for optimal self-tuning control p843
Grote, N., Bornholdt, C., Döldissen, W., Franke, D., Krauser, J., Niggebrügge, U., Nolting, H.P., Schlak, M., and Tiedke, I. see Bornholdt, C.
Grothe, H., Muller, G., Harth, W., and Proebster, W. 560 Mbit/s transmission experiment using 1·3 μm InGaAsP/InP LED p909
Grothe, H., and Proebster, W. Monolithic integration of InGaAsP/InP LED and transistor—a light-coupled bistable electro-optical device p194
Grouillet, A.M., Valette, S., Lizet, J., Mottier, P., Jadot, J.P., Renard, S., Fournier, A., Gidon, P., and Denis, H. see Valette, S.
Gruzyinskis, V., and Reklaitis, A. Current oscillations in semiconductor diodes under streaming instability conditions p733
Guilloux, J.Y., Rivoallan, L., and Lamouler, P. see Rivoallan, L.
Gunapala, S., Coon, D.D., Karunasiri, R.P.G., and Muehlhoff, H.-M. see Coon, D.D.
Gundlach, A.M., Henderson, B.M.M., and Walton, A.J. see Henderson, B.M.M.
Gundlach, K.H., Blundell, R., and Blum, E.J. see Blundell, R.
Guoxiang, Song, and Huli, Shi Topology-finite-element method for solving electromagnetic field problems p572
Gupta, S.N., and Jain, V.K. see Jain, V.K.

H

Haddad, G.I., Blakey, P.A., East, J.R., and Elta, M.E. see Blakey, P.A.
Haller, E.E., Pearton, S.J., and Elliott, A.G. see Pearton, S.J.
Halliden, P.W., Beker, H.J., and Friend, J.M.K. see Beker, H.J.
Hamaguchi, H., Wada, O., Miura, S., Makiuchi, M., Yamakoshi, S., Sakurai, T., Nakai, K., and Iguchi, K. see Wada, O.
Han, C.H., and Kim, C.K. Experimental realisation of a full adder by substrate fed threshold logic structure p613
Haond, M., Bensahel, D., Vu, D.P., and Colinge, J.P. see Bensahel, D.
Haond, M., Colinge, J.P., Bensahel, D., Alamome, M., and Pfister, J.C. see Colinge, J.P.
Haond, M., Vu, D.P., D'Ouville, T.Ternisien, Perio, A., and Mingam, H. see Vu, D.P.
Harder, C., Rav-Noy, Z., Schreter, U., Margalit, S., and Yariv, A. see Rav-Noy, Z.
Harris, J.J., and Woodcock, J.M. see Woodcock, J.M.
Harrison, A.P., Lamb, J.G., and McHugh, T.M. see Lamb, J.G.
Harrison, T.R., Herbst, D., Bösch, M.A., Lemons, R.A., and Tewksbury, S.K. see Herbst, D.
Harth, W., Grothe, H., Muller, G., and Proebster, W. see Grothe, H.
Harth, W., and Schimpe, R. see Schimpe, R.
Hartnagel, H.L., and Heinrich, W. see Heinrich, W.
Hartog, A.H., and Gold, M.P. see Gold, M.P.
Harvey, D., and Johnson, R.H. see Johnson, R.H.
Hasan, P. Algorithm for solving a class of phase-lock-loop equations p153
Hasegawa, H., Arimoto, S., Yamamoto, H., and Ohno, H. see Arimoto, S.
Hasegawa, H., Yamamoto, H., Arimoto, S., Ohno, H., and Nanjo, J. see Yamamoto, H.
Hasegawa, H., Yamamoto, H., Sawada, T., Arimoto, S., and Ohno, H. see Yamamoto, H.
Hashimoto, S., Nakano, H., and Yamauchi, J. see Nakano, H.
Hashizume, N., Awano, Y., Tomizawa, K., and Kawashima, M. see Awano, Y.
Hashizume, N., Tomizawa, K., Awano, Y., and Kawashima, M. see Tomizawa, K.
Hata, S., Ikeda, M., Wakita, K., Kondo, S., and Kanbe, H. see Ikeda, M.
Hatano, H., and Shibuya, M. CMOS logic circuit optimum design for radiation tolerance p977
Hayashi, Y., Nagai, K., and Sekigawa, T. see Nagai, K.
Hayashibara, G.M., Tahim, R.S., and Chang, K. see Tahim, R.S.
Hayes, J.R., Capasso, F., Gossard, A.C., Malik, R.J., and Wiegmann, W. Bipolar transistor with graded band-gap-base p410
Heaton, J.L., Fabian, W., Spooner, F., and Kraemer, E.H. High-performance millimetre-wave mixer diodes fabricated using a deep mesa etch approach p749
Heidemann, R., Pfeiffer, Th., and Jäger, D. Optoelectronically pulsed slot-line antennas p316
Heiliot, F., Scavennec, A., Ankri, D., Besombes, C., Courbet, C., and Riou, J. see Scavennec, A.
Heinlein, W.E., and Müller, T. see Müller, T.
Heinrich, W., and Hartnagel, H.L. Wave-theoretical analysis of signal propagation on FET electrodes p65
Heitmann, W., Bonewitz, H.U., and Mühlich, A. New absorption bands in pure and F-doped silica optical fibres p616
Heitmann, W., and Wittmann, M. Hydroxyl concentration profile in low-loss graded-index fibres p564
Helard, M., Citerne, J., Picon, O., and Fouad-Hanna, V. Exact calculations of scattering parameters of a step slot width discontinuity in a unilateral fin-line p537

Hemenway, B.R., Bowers, J.E., Coldren, L.A., Miller, B.I., and Martin, R.J. see Bowers, J.E.
Hemenway, B.R., Bowers, J.E., and Miller, B.I. Anisotropic undercutting in (100) indium phosphide p1049
Hemment, P.L.F., Maydell-Ondrusz, E.A., Stephens, K.G., and Scovell, P.D. Regrowth of amorphous layers in silicon-on-insulator structures formed by the implantation of oxygen p483
Henderson, B.M.M., Gundlach, A.M., and Walton, A.J. Integrated-circuit test structure which uses a vernier to electrically measure mask misalignment p868
Henein, K.M., and King, R.A. General form for representing the Fourier transform p767
Henmi, N., Kikuchi, K., Okoshi, T., and Nagamatsu, M. see Kikuchi, K.
Henning, I.D. Linewidth broadening in semiconductor lasers due to mode competition noise p935
Henning, I.D., and Collins, J.V. Measurements of the semiconductor laser linewidth broadening factor p927
Henning, I.D., and O'Mahony, M.J. see O'Mahony, M.J.
Hennings, D., and Tsironis, C. see Tsironis, C.
Henry, L., and Mottet, S. see Mottet, S.
Henry, P.S., and Chraplyvy, A.R. see Chraplyvy, A.R.
Herben, M.H.A.J., Vissers, J.M.M., and Maanders, E.J. see Vissers, J.M.M.
Herbst, D., Bösch, M.A., Lemons, R.A., Tewksbury, S.K., and Harrison, T.R. PMOS transistors fabricated in large-area laser-crystallised Si on silica p12
Hermansson, B., and Yevick, D. Numerical investigation of soliton interaction p570
Heron, M.L., and Rose, R.J. High-dynamic-range AM detector for data logging applications p1051
Herscher, B.A., and Carroll, J.E. Frequency-selective combline directional couplers designed as novel filters and multiplexers p691
Hersee, S., Razeghi, M., Hirtz, P., Blondeau, R., de Cremoux, B., and Duchemin, J.P. see Razeghi, M.
Hersee, S.D., Krakowski, M., Hirtz, P., Blondeau, R., Baldy, M., de Cremoux, B., and Duchemin, J.P. see Krakowski, M.
Hershey, J.E., and Yarlagadda, R. Two-dimensional synchronisation p801
Heyden, F.V.D., and Prakash, S. see Prakash, S.
Hide, I., Maeda, Y., and Yokoyama, T. see Maeda, Y.
Higuchi, H., Oomura, E., Hirano, R., Sakakibara, Y., Namizaki, H., Susaki, W., and Fujikawa, K. Screening of long-wavelength laser at high temperature and high current levels p976
Higuchi, H., Oomura, E., Hirano, R., Sakakibara, Y., Namizaki, H., and Susaki, W. see Oomura, E.
Hikita, M., Tabuchi, T., Kojima, H., and Kinoshita, Y. Miniature 90 MHz low-loss narrowband SAW filter using new resonant configuration p944
Hill, L.D. New method for producing and mounting barretter elements for power measurement in waveguides p352
Hill, L.D., Griffin, E.J., and Slack, G.J. see Griffin, E.J.
Hing, L.A., and Curran, J.E. Assessment of millimetre-wave Si impatt material p1091
Hinken, J.H., and Schieblich, C. see Schieblich, C.
Hirano, R., Higuchi, H., Oomura, E., Sakakibara, Y., Namizaki, H., Susaki, W., and Fujikawa, K. see Higuchi, H.
Hirano, R., Oomura, E., Higuchi, H., Sakakibara, Y., Namizaki, H., and Susaki, W. see Oomura, E.
Hirayama, Y., Okuda, H., Kinoshita, J., Furuyama, H., and Uematsu, Y. see Okuda, H.
Hirayama, Y., Okuda, H., Kinoshita, J., and Uematsu, Y. see Okuda, H.
Hirtz, P., Krakowski, M., Blondeau, R., Hersee, S.D., Baldy, M., de Cremoux, B., and Duchemin, J.P. see Krakowski, M.
Hirtz, P., Razeghi, M., Blondeau, R., deCremoux, B., and Duchemin, J.P. see Razeghi, M.
Hirtz, P., Razeghi, M., Hersee, S., Blondeau, R., deCremoux, B., and Duchemin, J.P. see Razeghi, M.
Hobdell, J., Kemp, G., and Biggin, J.W. see Kemp, G.
Hodgkinson, T.G., Malyon, D.J., Smith, D.W., and Booth, R.C. see Malyon, D.J.
Hodgkinson, T.G., Wyatt, R., and Smith, D.W. see Wyatt, R.
Hofmann, K.R., Borchert, B., and Dorda, G. see Borchert, B.
Hohkawa, K., Tazo, Y., Nagata, K., and Ishida, A. Sub-10 ps high-gain direct coupled Josephson logic gate p291
Holden, W.S., Campbell, J.C., Dentai, A.G., and Kasper, B.L. see Campbell, J.C.
Holt, A.G.J., Maras, A.M., and Davidson, H. see Maras, A.M.
Hombach, V. Reduction of sidelobe level of reflector antennas by covering feed struts with a periodic structure p371
Hong, C.S., Kasemset, D., Kim, M.E., and Milano, R.A. GaAlAs buried-heterostructure lasers grown by a two-step MOCVD process p759
Hong, C.S., Prince, F.C., Patel, N.B., and Kasemset, D. see Prince, F.C.
Hong, Dong-Hee, Lee, Yong-Hee, and Ra, Jung-Woong see Lee, Yong-Hee
Honmou, H., Aoki, Y., Kishida, S., Washio, K., and Sugimoto, M. see Aoki, Y.
Hooper, R.C. Analysis of dicoding in optical-fibre communication systems p304
Horiguchi, S., Aoki, T., and Kasai, R. see Aoki, T.
Horii, K., Kushibiki, J., and Chubachi, N. see Kushibiki, J.
Horikoshi, Y., Iwamura, H., Saku, T., Ishibashi, T., and Otsuka, K. see Iwamura, H.
Horng, J.S., Lee, C.L., and Huang, C.H. see Lee, C.L.
Hornung, S., Kashyap, R., Reeve, M.H., and Cassidy, S.A. see Kashyap, R.
Hosaka, Y., Sasaki, Y., Takada, K., and Noda, J. see Sasaki, Y.
Hoshino, K., Kawata, O., and Ishihara, K. see Kawata, O.
Howard, D.M., and Fourein, A.J. Instantaneous voice period measurement for cochlear stimulation p776
Howland, R.S., Newton, S.A., Jackson, K.P., and Shaw, H.J. see Newton, S.A.
Hsieh, K.H., Ohno, H., Wicks, G., and Eastman, L.F. Dependence of electron mobility on spacer thickness and electron density in modulation-doped $Ga_{0.47}In_{0.53}As/Al_{0.48}In_{0.52}As$ heterojunctions p160
Hübner, H., Bachmann, P., Geittner, P., Leers, D., and Lennartz, M. see Bachmann, P.
Huang, C.-C. Simple formula for the RCS of a finite hollow circular cylinder p854
Huang, C.H., Lee, C.L., and Horng, J.S. see Lee, C.L.
Huli, Shi, and Guoxiang, Song see Guoxiang, Song
Hulme, K.F., and Pinson, J.T. Improved acousto-optic modulators for CO_2 heterodyne laser systems p254
Hunt, P.C., Saul, P.H., and Walker, R.S. see Saul, P.H.
Huynh, H.T., and Fortier, P. Cochannel and intersymbol interferences in QAM system p764
Hwang, J.C.M., Chao, P.C., Yu, T., Smith, P.M., Wanuga, S., Perkins, W.H., Lee, H., Eastman, L.F., and Wolf, E.D. see Chao, P.C.

I

Ibrahim, K.M., and AbdulKarim, M.A.H. Rectangular to polar conversion p530
Iga, K., Kokubun, Y., Suzuki, S., Fuse, T., Uehara, H., Oikawa, M., and Misawa, S. see Kokubun, Y.
Iga, K., Soda, H., Terakado, T., and Shimizu, S. Lasing characteristics of improved GaInAsP/InP surface emitting injection lasers p457
Iguchi, K., Wada, O., Hamaguchi, H., Miura, S., Makiuchi, M., Yamakoshi, S., Sakurai, T., and Nakai, K. see Wada, O.
Ikeda, M. Isolation spectra for laser diode optical switch p584
Ikeda, M. Optical properties for an antireflection-coated LD optical switch p826
Ikeda, M. Reduction of turn-on delay in laser diode optical switch p53
Ikeda, M., Shimizu, N., and Imoto, N. see Shimizu, N.
Ikeda, M., Wakita, K., Hata, S., Kondo, S., and Kanbe, H. Planar InP/InGaAs-APD with a guardring formed by Cd diffusion through SiO_2 p61
Ikegami, T., Nakano, Y., Motosugi, G., and Yoshikuni, Y. see Nakano, Y.
Ikegami, T., Takahei, K., Fukuda, M., and Kuroiwa, K. Stress tests on 1.3 μm buried-heterostructure laser diode p282
Ikegami, T.T., Kawamura, Y., Asahi, H., and Nagia, H. see Kawamura, Y.
Imoto, N., Shimizu, N., and Ikeda, M. see Shimizu, N.
Inagaki, N., Ohmori, Y., Itoh, H., and Nakahara, M. see Ohmori, Y.
Indusekhar, H., and Kumar, V. see Kumar, V.
Ingram, D.G.W., and Takawira, F. Estimation of minimum-phase impulse responses p946
Inoue, T., and Ueno, F. Parasitics-compensated building blocks for switched-capacitor filters p970
Inoue, T., and Yamamura, K. Total radiant measurement of laser diode by a calorimetric method p320
Inuishi, Y., Koyama, J., and Shirafuji, J. see Koyama, J.
Irving, D.H. Near-field scanning technique for profiling single-mode fibres p190
Ishak, W. 4–20 GHz magnetostatic-wave delay-line oscillator p930
Ishibashi, T., Iwamura, H., Saku, T., Otsuka, K., and Horikoshi, Y. see Iwamura, H.
Ishida, A., Hohkawa, K., Tazo, Y., and Nagata, K. see Hohkawa, K.
Ishida, Y., Suzuki, K., and Shibata, N. see Suzuki, K.
Ishida, Y., Uesugi, N., Kuwabara, T., Ohashi, M., and Uchida, N. see Uesugi, N.
Ishida, Y., Uesugi, N., Murakami, Y., Tanaka, C., Mitsunaga, Y., Negishi, Y., and Uchida, N. see Uesugi, N.
Ishihara, K., Kawata, O., and Hoshino, K. see Kawata, O.
Ishihara, K., Kimura, Y., Murakami, Y., and Noguchi, K. see Kimura, Y.
Ishihara, K., Noguchi, K., and Murakami, Y. see Noguchi, K.
Ishihara, T., Enomoto, T., Yasumoto, M., and Watanabe, K. see Enomoto, T.
Ishihata, Y., Shibata, K., and Yanagisawa, H. see Shibata, K.
Ishii, R. s-z transformations for digital filters p350
Ishii, R., and Wakamoto, M. Estimation of truncation and aliasing errors involved in DFT computation p770
Ito, M., Wada, O., Miura, S., Nakai, K., and Sakurai, T. Planar structure AlGaAs/GaAs PIN photodiode grown by MOCVD p522
Itoh, H., Nakahara, M., and Ohmori, Y. see Nakahara, M.
Itoh, H., Ohmori, Y., Nakahara, M., and Inagaki, N. see Ohmori, Y.
Itoh, T., and Fukuoka, Y. see Fukuoka, Y.
Itoh, Y., Yashima, H., and Mitera, H. see Yashima, H.
Ittipiboon, A., Kishk, A.A., and Shafai, L. see Kishk, A.A.
Ittipiboon, A., Shafai, L., and Kishk, A.A. see Shafai, L.
Iwamoto, Y., Namihira, Y., Mochizuki, K., and Kuwazuru, M. see Namihira, Y.
Iwamura, H., Kobayashi, H., Saku, T., and Otsuka, K. see Kobayashi, H.
Iwamura, H., Saku, T., Ishibashi, T., Otsuka, K., and Horikoshi, Y. Dynamic behaviour of a GaAs-AlGaAs MQW laser diode p180
Iwane, G., Nakano, Y., Fukuda, M., Sudo, H., and Fujita, O. see Nakano, Y.

J

Jäger, D., Heidemann, R., and Pfeiffer, Th. see Heidemann, R.
Jack, M.A., Blackley, W.S., and Jordan, J.R. see Blackley, W.S.
Jack, M.A., and Duncan, G. see Duncan, G.
Jack, M.A., and Mactaggart, I.R. see Mactaggart, I.R.
Jackel, J.L., Rice, C.E., and Veselka, J.J. Composition control in proton-exchanged $LiNbO_3$ p387
Jackson, D.A., Corke, M., Kersey, A.D., and Jones, J.D.C. see Corke, M.
Jackson, D.A., Kersey, A.D., Corke, M., and Jones, J.D.C. see Kersey, A.D.
Jackson, D.A., Kersey, A.D., and Corke, M. see Kersey, A.D.
Jackson, K.P., Newton, S.A., Howland, R.S., and Shaw, H.J. see Newton, S.A.
Jackson, K.P., Sorin, W.V., and Shaw, H.J. see Sorin, W.V.
Jadot, J.P., Valette, S., Lizet, J., Mottier, P., Renard, S., Fournier, A., Grouillet, A.M., Gidon, P., and Denis, H. see Valette, S.
Jain, S.C., Agarwal, S.K., and Ray, U.C. Determination of minority carrier lifetime and effective back surface recombination velocity in BSF silicon solar cells from transient mearsurements p365
Jain, V.K., and Gupta, S.N. Performance of DPSK system in impulsive atmospheric radio noise with varying impulse rates and intersymbol interference p999
Jakubiak, A. False-alarm probabilities for a log-t detector in K-distributed clutter p725
Jana, P.B., Nandi, S., and Nandi, R. see Nandi, S.
Janiczak, B. Behaviour of guided modes in systems of parallelly located transmission lines on dielectric substrates p778
Janiczak, B., and Kitliński, M. Analysis of coupled asymmetric microstrip lines on a ferrite substrate p779
Janiczak, B., and Kitliński, M. New properties of double-layer coupled slot lines configuration p846
Janiczak, B., and Kitlinski, M. see Kitlinski, M.
Jansen, R.H., Kirschning, M., and Koster, N.H.L. see Kirschning, M.
Jecko, F., Penaud, N., and Papiernik, A. TE_{11} modes in straight and curved circular waveguide with 'deformed' cross-section p382
Jecko, F., and Papiernik, A. Helically corrugated circular waveguides as antenna feeders p555
Jen, C.K., Farnell, G.W., Kinsella, R.D., and Bussière, J. Elastic profile measurements of optical fibres via reflections acoustic microscopy p922
Jenkins, D.A., and Parker, D.W. Technique for flexible multidimensional filter design p1088
Jeyens, C., Milosavljevic, M., and Wilson, I.H. see Milosavljevic, M.
Johannessen, J.S., and Fjeldly, T.A. see Fjeldly, T.A.
Johnson, R.H., and Harvey, D. Hydraulic waveguide flange clamp for precision measurements p730
Johnson, S.A., Yoon, Tae-Hoon, and Ra, Jung-Woong Inverse scattering solutions of scalar Helmholtz wave equation by a multiple source moment method p130
Johnston, A.R., Bergman, L.A., and Eng, S.T. see Bergman, L.A.
Jones, A.H., and Porter, B. see Porter, B.
Jones, J.D.C., Corke, M., Kersey, A.D., and Jackson, D.A. see Corke, M.
Jones, J.D.C., Kersey, A.D., Corke, M., and Jackson, D.A. see Kersey, A.D.

Jordan, J.R., Blackley, W.S., and Jack, M.A. see Blackley, W.S.
Joyce, G.C., Griffiths, R.J.M., Chew, N.G., and Cullis, A.G. see Griffiths, R.J.M.
Junyent-Giralt, G., Agusti-Comes, R., and Casadevall-Palacio, F. see Agusti-Comes, R.
Jurczyszyn, M., Bourret, G., Doll, A., Bassier, G., and Raffin, G. see Bourret, G.

K

Kabuli, G., and Anday, F. Stray-insensitive switched-capacitor-network realisation for voltage transfer functions p60
Kameyama, A., Sugou, S., Katsuda, H., Miyamoto, Y., Furuya, K., and Suematsu, Y. see Sugou, S.
Kaminow, I.P., Ko, J.-S., Linke, R.A., and Stulz, L.W. High-speed 1.55 μm single-longitudinal-mode ridge waveguide C^3 laser p784
Kaminow, I.P., Lin, Chinlon, Burrus, C.A., Linke, R.A., Ko, J.S., Dentai, A.G., Logan, R.A., and Miller, B.I. see Lin, Chinlon
Kaminow, I.P., Linke, R.A., Kasper, B.L., Ko, J.S., and Vodhanel, R.S. see Linke, R.A.
Kaminow, I.P., Stulz, L.W., Ko, J.-S., Miller, B.I., Feldman, R.D., DeWinter, J.C., and Pollack, M.A. Low threshold ridge waveguide laser at 1·55 μm p877
Kaminow, I.P., Tucker, R.S., and Eisenstein, G. see Tucker, R.S.
Kan, Y., Suemune, I., and Yamanishi, M. see Suemune, I.
Kanbe, H., Ikeda, M., Wakita, K., Hata, S., and Kondo, S. see Ikeda, M.
Kaneda, T., Mikawa, T., Nishimoto, H., Motegi, M., and Okushima, H. see Mikawa, T.
Kaneda, T., Shirai, T., Mikawa, T., and Miyauchi, A. see Shirai, T.
Kaneda, T., Yasuda, K., Shirai, T., Mikawa, T., and Kishi, Y. see Yasuda, K.
Kanmuri, N., and Chiba, K. see Chiba, K.
Kapon, E., Katz, J., Lindsey, C., Margalit, S., and Yariv, A. see Katz, J.
Karakida, S., Koshiba, M., and Suzuki, M. see Koshiba, M.
Karunasiri, R.P.G., Coon, D.D., Gunapala, S., and Muehlhoff, H.-M. see Coon, D.D.
Karunasiri, R.P.G., and Coon, D.D. see Coon, D.D.
Kasahara, K., Sugimoto, M., Nomura, H., and Suzuki, S. Integrated PINFET optical receiver with high-frequency InP-MISFET p905
Kasai, R., Aoki, T., and Horiguchi, S. see Aoki, T.
Kasemset, D., Hong, C.S., Kim, M.E., and Milano, R.A. see Hong, C.S.
Kasemset, D., Prince, F.C., Patel, N.B., and Hong, C.S. see Prince, F.C.
Kashyap, R., Hornung, S., Reeve, M.H., and Cassidy, S.A. Temperature desensitisation of delay in optical fibres for sensor applications p1039
Kasper, B.L., Campbell, J.C., Dentai, A.G., and Holden, W.S. see Campbell, J.C.
Kasper, B.L., Linke, R.A., Ko, J.S., Kaminow, I.P., and Vodhanel, R.S. see Linke, R.A.
Kato, K., Nakashima, S., and Akiya, M. see Nakashima, S.
Kato, Y., Yanase, T., Mito, I., Yamaguchi, M., Nishi, K., Kobayashi, K., and Lang, R. see Yanase, T.
Katoh, K., Yasui, M., Kuniyasu, S., and Watanabe, H. Amorphous-silicon FET array for LCD panel p506
Katsuda, H., Sugou, S., Kameyama, A., Miyamoto, Y., Furuya, K., and Suematsu, Y. see Sugou, S.
Katz, J., Kapon, E., Lindsey, C., Margalit, S., and Yariv, A. Far-field distribution of semiconductor phase-locked arrays with multiple contacts p660
Kawabuchi, K., Sakurai, S., and Yoshimi, M. Sub-micrometre X-ray printing with X-ray masks delineated by high-voltage electron-beam writing p287
Kawachi, M. Fabricatlon of polarisation-maintaining [3 x 3] single-mode-fibre couplers p781
Kawachi, M., Yasu, M., and Edahiro, T. Fabrication of SiO_2-TiO_2 glass planar optical waveguides by flame hydrolysis deposition p583
Kawaguchi, H., and Otsuka, K. Generation of single-longitudinal-mode gigabit-rate optical pulses from semiconductor lasers through harmonic-frequency sinusoidal modulation p668
Kawai, M., Suzuki, K., and Egami, S. Concept of multport-coupling beam-switching network and its basic performance in K-band p990
Kawai, N.J., Nakagawa, T., Ohta, K., and Kawashima, M. see Nakagawa, T.
Kawai, Y., Sakai, T., Konaka, S., Kobayashi, Y., and Suzuki, M. see Sakai, T.
Kawakami, S., and Tanji, H. Evolution of power distribution in graded-index fibres p100
Kawakami, T., and Yokoshima, I. Laser-beam attenuation measurement using acousto-optic modulator p653
Kawamura, Y., Asahi, H., Nagia, H., and Ikegami, T.T. 0.66 μm room-temperature operation of InGaAlP DH laser diodes grown by MBE p163
Kawamura, Y., Asahi, H., Noguchi, Y., Matsuoka, T., and Nagai, H. see Asahi, H.
Kawano, H., Ueno, M., Furuse, T., and Sakuma, I. see Ueno, M.
Kawashima, M., Awano, Y., Tomizawa, K., and Hashizume, N. see Awano, Y.
Kawashima, M., Livingstone, A., Tsubaki, K., Okamoto, H., and Kumabe, K. see Livingstone, A.
Kawashima, M., Nakagawa, T., Kawai, N.J., and Ohta, K. see Nakagawa, T.
Kawashima, M., Tomizawa, K., Awano, Y., and Hashizume, N. see Tomizawa, K.
Kawata, O., Hoshino, K., and Ishihara, K. Low-loss single-mode-fibre splicing technique using core direct monitoring p1048
Kayran, A.H., Lim, YongChing, and Parker, S.R. see Lim, YongChing
Keck, D.B., Bhagavatula, V.A., Spotz, M.S., and Love, W.F. see Bhagavatula, V.A.
Keen, K.M. Fast algorithm for the exact determination of the mapped effective areas of trihedral radar reflectors p1014
Keen, K.M. Prediction of scattering cross-section reductions due to plate orthogonality errors in trihedral radar reflectors p115
Keen, K.M. Use of radio telescopes or satellite earth station antennas as ultra-high scattering cross-section calibration targets for spaceborne remote sensing radars p225
Keen, N.J., and Zirath, H. Hot-electron noise generation in gallium-arsenide Schottky-barrier diodes p853
Kelly, M.J., Todd, A.G., Sisson, M.J., and Wickenden, D.K. Contacts between amorphous metals and semiconductors p474
Kemp, A.J. Translinear logic—a new technique in bipolar technology p349
Kemp, G., Hobdell, J., and Biggin, J.W. Ultra-wideband quadrature coupler p197
Kennis, P., Pribetich, P., and Toutain, S. see Pribetich, P.
Kennis, P., Seguinot, C., and Pribetich, P. see Seguinot, C.
Kersey, A.D., Corke, M., Jackson, D.A., and Jones, J.D.C. see Corke, M.
Kersey, A.D., Corke, M., Jackson, D.A., and Jones, J.D.C. Detection of DC and low-frequency AC magnetic fields using an all single-mode fibre magnetometer p469
Kersey, A.D., Jackson, D.A., and Corke, M. Demodulation scheme fibre interferometric sensors employing laser frequency switching p102
Khan, P.J., and Bialkowski, M.E. see Bialkowski, M.E.
Khoe, G.D., Poulissen, J., and deVrieze, H.M. Efficient coupling of laser diodes to tapered monomode fibres with high-index end p205
Kikuchi, K., Okoshi, T., Nagamatsu, M., and Henmi, N. Bit-error rate of PSK heterodyne optical communication system and its degradation due to spectral spread of transmitter and local oscillator p417
Kikuchi, K., Okoshi, T., and Aihara, T. see Okoshi, T.
Kikuchi, K., and Okoshi, T. Measurement of spectra of and correlation between FM and AM noises in GaAlAs lasers p812
Kim, B. Equivalent-circuit consideration of dual-gate MESFETs at high frequency p705
Kim, B., Saunier, P., and Frensley, W.R. see Saunier, P.
Kim, C.K., and Han, C.H. see Han, C.H.
Kim, J.K., and Kim, N.C. see Kim, N.C.
Kim, M.E., Hong, C.S., Kasemset, D., and Milano, R.A. see Hong, C.S.
Kim, N.C., and Kim, J.K. Behaviour of a generalised covariance model in picture coding p260
Kim, S.-Y., Ra, J.-W., and Shin, S.-Y. Edge diffraction by dielectric wedge of arbitrary angle p851
Kimura, T., Mukai, T., Saitoh, T., and Mikami, O. see Mukai, T.
Kimura, T., and Akiya, M. see Akiya, M.
Kimura, Y., Murakami, Y., Noguchi, K., and Ishihara, K. Characteristics of wire-space-type submarine optical cable p595
King, R., and Nasrabadi, N. see Nasrabadi, N.
King, R.A., Nasrabadi, N.M., and Pal, S.K. see Nasrabadi, N.M.
King, R.A., and Henein, K.M. see Henein, K.M.
King, R.A., and Nasrabadi, N.M. see Nasrabadi, N.M.
Kinoshita, J., Okuda, H., Hirayama, Y., Furuyama, H., and Uematsu, Y. see Okuda, H.
Kinoshita, J., Okuda, H., Hirayama, Y., and Uematsu, Y. see Okuda, H.
Kinoshita, J., Okuda, H., and Uematsu, Y. Preserving InP surface corrugations for 1.3 μm GaInAsP/InP DFB lasers from thermal deformation during LPE process p215
Kinoshita, Y., Hikita, M., Tabuchi, T., and Kojima, H. see Hikita, M.
Kinsella, R.D., Jen, C.K., Farnell, G.W., and Bussière, J. see Jen, C.K.
Kirschning, M., Jansen, R.H., and Koster, N.H.L. Coupled microstrip parallel-gap model for improved filter and coupler design p377
Kishi, Y., Yasuda, K., Shirai, T., Mikawa, T., and Kaneda, T. see Yasuda, K.
Kishida, S., Aoki, Y., Honmou, H., Washio, K., and Sugimoto, M. see Aoki, Y.
Kishk, A.A., Shafai, L., and Ittipiboon, A. see Shafai, L.
Kishk, A.A., Shafai, L., and Ittipiboon, A. Performance of small primary feeds with trapezoidal and sinusoidal corrugations p297
Kitamura, M., Murata, S., Yamaguchi, M., Mito, I., and Kobayashi, K. see Murata, S.
Kitamura, M., Seki, M., Yamaguchi, M., Mito, I., Kobayashi, Ke., Kobayashi, Ko., and Matsuoka, T. High-power single-longitudinal-mode operation of 1·3 μm DFB-DC-PBH LD p840
Kitazawa, H., and Ueda, K. see Ueda, K.
Kitliński, M., and Janiczak, B. see Janiczak, B.
Kitlinski, M., and Janiczak, B. Dispersion characteristics of asymmetric coupled slot lines on dielectric substrates p91
Klem, J., Fischer, R., Drummond, T.J., Morkocced, H., and Cho, A.Y. Incorporation of Sb IN $GaAs_{1-x}Sb_x$ ($x<0.15$) by molecular beam epitaxy p453
Kneppo, I. Integration decrement method for measuring Q of microwave resonators p496
Ko, J.-S., Kaminow, I.P., Linke, R.A., and Stulz, L.W. see Kaminow, I.P.
Ko, J.-S., Kaminow, I.P., Stulz, L.W., Miller, B.I., Feldman, R.D., DeWinter, J.C., and Pollack, M.A. see Kaminow, I.P.
Ko, J.S., Lin, Chinlon, Burrus, C.A., Linke, R.A., Kaminow, I.P., Dentai, A.G., Logan, R.A., and Miller, B.I. see Lin, Chinlon
Ko, J.S., Linke, R.A., Kasper, B.L., Kaminow, I.P., and Vodhanel, R.S. see Linke, R.A.
Körber, W., Eisele, H., and Benz, K.W. see Eisele, H.
Kobayashi, H., Iwamura, H., Saku, T., and Otsuka, K. Polarisation-dependent gain-current relationship in GaAs-AlGaAs MQW laser diodes p166
Kobayashi, K., Murata, S., Kitamura, M., Yamaguchi, M., and Mito, I. see Murata, S.
Kobayashi, K., Yanase, T., Kato, Y., Mito, I., Yamaguchi, M., Nishi, K., and Lang, R. see Yanase, T.
Kobayashi, Ke., Kitamura, M., Seki, M., Yamaguchi, M., Mito, I., Kobayashi, Ko., and Matsuoka, T. see Kitamura, M.
Kobayashi, Ko., Kitamura, M., Seki, M., Yamaguchi, M., Mito, I., Kobayashi, Ke., and Matsuoka, T. see Kitamura, M.
Kobayashi, S., and Otsuka, K. see Otsuka, K.
Kobayashi, Y., Sakai, T., Konaka, S., Suzuki, M., and Kawai, Y. see Sakai, T.
Kohn, E., Magarshack, J., Mishra, U., and Eastman, L.F. Novel vertical GaAs FET structure with submicrometre source-to-drain spacing p1021
Kohn, E., and Dortu, J.M. MIM gate FET : new GaAs enhancement-mode transistor p434
Kojima, H., Hikita, M., Tabuchi, T., and Kinoshita, Y. see Hikita, M.
Kokubun, Y., Suzuki, S., Fuse, T., Uehara, H., Iga, K., Oikawa, M., and Misawa, S. Novel mode scrambler for reducing mode dependence in multimode optical waveguides p1009
Kolner, B.H., Bloom, D.M., and Cross, P.S. Electro-optic sampling with picosecond resolution p574
Komeno, J., Takikawa, M., and Ozeki, M. TDEG in $In_{0.53}Ga_{0.47}As$-InP heterojunction grown by chloride VPE p473
Konaka, S., Sakai, T., Kobayashi, Y., Suzuki, M., and Kawai, Y. see Sakai, T.
Kondo, S., Ikeda, M., Wakita, K., Hata, S., and Kanbe, H. see Ikeda, M.
Kopp, W., Drummond, T.J., Arnold, D., Fischer, R., Morkoç, H., Erickson, L.P., and Palmberg, P.W. see Drummond, T.J.
Kopp, W., Fischer, R., Drummond, T.J., Morkocced, H., Lee, K., and Shur, M.S. see Fischer, R.
Kopp, W., Su, S.L., Lyons, W.G., Tejayadi, O., Fischer, R., Morkoc,, H., Mclevige, W., and Yuan, H.T. see Su, S.L.
Korenberg, M. Statistical identification of difference equation representations for nonlinear systems p175
Koshiba, M., Karakida, S., and Suzuki, M. Finite-element analysis of edge resonance in a semi-infinite elastic plate p256
Koster, N.H.L., Kirschning, M., and Jansen, R.H. see Kirschning, M.
Koutzarov, S.I. Simple digitally controlled amplifier p268
Kowalsky, W., and Schlachetzki, A. Transferred-electron effect in $In_{0.53}Ga_{0.47}As$ p189
Koyama, F., Tanbun-Ek, T., Arai, S., Wang, S., Suematsu, Y., and Furuya, K. Suppression of intensity fluctuation of a longitudinal mode in directly modulated GaInAsP/InP dynamic single-mode p325
Koyama, J., Shirafuji, J., and Inuishi, Y. Annealing behaviour of gamma-ray-induced electron traps in LEC n-InP p609
Kozaki, S., and Sugimoto, S. see Sugimoto, S.
Kraemer, E.H., Heaton, J.L., Fabian, W., and Spooner, F. see Heaton, J.L.
Krakowski, M., Hirtz, P., Blondeau, R., Hersee, S.D., Baldy, M., de Cremoux, B., and Duchemin, J.P. Low threshold current GaAs/GaAlAs GRIN-SCH stripe lasers grown by OMVPE p1082
Krauser, J., Bornholdt, C., Döldissen, W., Franke, D., Grote, N., Niggebrügge, U., Nolting, H.P., Schlak, M., and Tiedke, I. see Bornholdt, C.
Krug, J., and Edenhofer, P. Broadband termina-

tions for magnetostatic surface waves p971
Kuhl, J., Veith, G., and Göbel, E.O. see Veith, G.
Kumabe, K., Livingstone, A., Tsubaki, K., Kawashima, M., and Okamoto, H. see Livingstone, A.
Kumar, V., and Indusekhar, H. New temperature fluctuation method for direct determination of thermal activation energy of deep levels in semiconductors p271
Kuniyasu, S., Katoh, K., Yasui, M., and Watanabe, H. see Katoh, K.
Kuntman, H. Application of modified Ebers-Moll model to nonlinear distortion analysis of transistor amplifiers p126
Kuo, J.M., and Thiel, F.A. Study of deep level in bulk P-InP by admittance spectroscopy p41
Kuribara, M., and Takeda, Y. Liquid-core optical fibre for voltage measurement using Kerr effect p133
Kurita, S., Takahashi, N.S., Sasaki, T., and Fukushima, A. see Takahashi, N.S.
Kuroiwa, K., Ikegami, T., Takahei, K., and Fukuda, M. see Ikegami, T.
Kushibiki, J., Horii, K., and Chubachi, N. Multimode interference mechanism in V(z) curves obtained by acoustic line-focus beam p359
Kushibiki, J., Horii, K., and Chubachi, N. Velocity measurement of multiple leaky waves on germanium by line-focus-beam acoustic microscope using FFT p404
Kushibiki, J., Matsumoto, Y., and Chubachi, N. Attenuation measurements of leaky waves by the acoustic line-focus beam p512
Kushiro, Y., Matsushima, Y., Seki, N., Akiba, S., and Noda, Y. see Matsushima, Y.
Kuwabara, T., Uesugi, N., Ohashi, M., Ishida, Y., and Uchida, N. see Uesugi, N.
Kuwahara, H., Chikama, T., and Nakagami, T. Tuning characteristics of optical amplification in 1.5 μm InGaAsP/InP lasers p295
Kuwahara, H., Nishimoto, H., and Motegi, M. see Nishimoto, H.
Kuwazuru, M., Namihira, Y., Mochizuki, K., and Iwamoto, Y. see Namihira, Y.
Kuzimicz, W., and Zagozddzdon-Wosik, W. see Zagozddzdon-Wosik, W.
Kwok, C.Y. Analytic transformation of the generation-recombination centres in the transmission-line equivalent-circuit model of a semiconductor p947
Kwong, C.P. Simple method of computation of Wiener-Lee decomposition p747

L

Lainey, G., Saintlaurens, R., and Senn, P. Switched-capacitor second-order noise-shaping coder p148
Lam, H.W., Malhi, S.D.S., Shah, R.R., Shichijo, H., Pinizzotto, R.F., Chen, C.E., and Chatterjee, P.K. see Malhi, S.D.S.
Lam, K.K.K., and Copeland, M.A. Noise-cancelling switched-capacitor (SC) filtering technique p810
Lamb, J., Räisänen, A., Lehto, A., and Tiuri, M. see Räisänen, A.
Lamb, J.G., Harrison, A.P., and McHugh, T.M. Fabrication of long-length, high-strength single-mode silica fibres p533
Lamouler, P., Rivoallan, L., and Guilloux, J.Y. see Rivoallan, L.
Lampariello, P., and Oliner, A.A. Theory and design considerations for a new millimetre-wave leaky groove-guide antenna p18
Land, D.V. Radiometer input circuit requirements for microwave thermography p1040
Lang, R., Yanase, T., Kato, Y., Mito, I., Yamaguchi, M., Nishi, K., and Kobayashi, K. see Yanase, T.
Langeac, D., Lizet, J., and Valette, S. see Lizet, J.
Langley, R.J., El-Morsy, M.A.A., and Parker, E.A. see El-Morsy, M.A.A.
Langley, R.J., and Parker, E.A. Double-square frequency-selective surfaces and their equivalent circuit p675
Le Guen, D., Bouidene, Y., and Favre, F. see Bouidene, Y.
Le Guen, D., and Favre, F. see Favre, F.
Lee, C.L., Huang, C.H., and Horng, J.S. M-type electrode planar guided-wave beam splitter p929
Lee, C.P., and Wang, W.I. High-performance modulation-doped GaAs integrated circuits with planar structures p155
Lee, C.T. Crosstalk characteristics of lens-like Ti-LiNbO$_3$ intersecting channel waveguides p805
Lee, D.L., Goodberlet, M., and Vetelino, J.F. see Goodberlet, M.
Lee, H., Chao, P.C., Yu, T., Smith, P.M., Wanuga, S., Hwang, J.C.M., Perkins, W.H., Eastman, L.F., and Wolf, E.D. see Chao, P.C.
Lee, K., Fischer, R., Drummond, T.J., Kopp, W., Morkocced, H., and Shur, M.S. see Fischer, R.
Lee, T.P., Bates, R.J.S., Spalink, J.D., Butterfield, S.J., Lipson, J., Burrus, C.A., and Logan, R.A. see Bates, R.J.S.
Lee, T.P., Burrus, C.A., Linke, R.A., and Nelson, R.J. Short-cavity single-frequency InGaAsP buried-heterostructure lasers p82
Lee, Yong-Hee, Hong, Dong-Hee, and Ra, Jung-Woong Waveguide slot antenna with a coupled dipole above the slot p280
Leers, D., Bachmann, P., Geittner, P., Hübner, H., and Lennartz, M. see Bachmann, P.
Lehto, A., Räisänen, A., Tiuri, M., and Lamb, J. see Räisänen, A.
Leigh, J.R., and Li, C.K. see Li, C.K.
Lemons, R.A., Herbst, D., Bösch, M.A., Tewksbury, S.K., and Harrison, T.R. see Herbst, D.
Lenham, A.P., and West, R.H. see West, R.H.
Lennartz, M., Bachmann, P., Geittner, P., Hübner, H., and Leers, D. see Bachmann, P.
Leonberger, F.J., Becker, R.A., and Woodward, C.E. see Becker, R.A.
Leone, G., D'Elia, G., and Pierri, R. see D'Elia, G.
Leviatan, Y., Adams, A.T., Stockmann, P.H., and Meidaner, D.R. Cancellation performance degradation of a fully adaptive Yagi array due to inner-element coupling p176
Levin, K.H., Tran, D.C., Fisher, C.F., Burk, M.J., and SigelJun., G.H. see Tran, D.C.
Lewis, M.F. Group-type unidirectional SAW devices employing intratransducer reflector banks p1085
Lewis, M.F., and West, C.L. Efficient SAW convolver with 30 μs integration time p413
Leyva-Ramos, J., and Denman, E.D. Matrix partial-fraction expansion method p99
Li, C.K., and Leigh, J.R. Microprocessor simulation of variable sea conditions p397
Li, C.K., and Leigh, J.R. S-domain realisation of sea spectrum p186
Lim, T.K., Tjhung, T.T., and Mendis, F.V.C. see Tjhung, T.T.
Lim, YongChing, Kayran, A.H., and Parker, S.R. Efficient positive coefficient algorithm for image processing p324
Lin, C., Damen, T.C., Duguay, M.A., and Miller, B.I. see Damen, T.C.
Lin, C., and Tomita, A. Chirped picosecond injection laser pulse transmission in single-mode fibres in the minimum chromatic dispersion region p837
Lin, Chinlon, Burrus, C.A., Linke, R.A., Kaminow, I.P., Ko, J.S., Dentai, A.G., Logan, R.A., and Miller, B.I. Short-coupled-cavity(SCC) InGaAsP injection lasers for CW and high-speed single-longitudinal-mode operation p561
Lindsey, C., Katz, J., Kapon, E., Margalit, S., and Yariv, A. see Katz, J.
Lindström, C., Burnham, R.D., Scifres, D.R., Paoli, T.L., and Streifer, W. One watt CW visible single-quantum-well lasers p80
Lindström, C., Scifres, D.R., Burnham, R.D., Streifer, W., and Paoli, T.L. see Scifres, D.R.
Lindström, C., Burnham, R.D., Paoli, T.L., Streifer, W., and Scifres, D.R. CW high-power single-mode operation of gain-guided stripe-geometry multiple-quantum-well lasers p104
Linh, N.T., Armand, M., Bui, D.V., and Chevrier, J. see Armand, M.
Linke, R.A., Kaminow, I.P., Ko, J.-S., and Stulz, L.W. see Kaminow, I.P.
Linke, R.A., Kasper, B.L., Ko, J.S., Kaminow, I.P., and Vodhanel, R.S. 1 Gbit/s transmission experiment over 101 km of single-mode fibre using a 1.55 μm ridge guide C^3 laser p775
Linke, R.A., Lee, T.P., Burrus, C.A., and Nelson, R.J. see Lee, T.P.
Linke, R.A., Lin, Chinlon, Burrus, C.A., Kaminow, I.P., Ko, J.S., Dentai, A.G., Logan, R.A., and Miller, B.I. see Lin, Chinlon
Linke, R.A., Tsang, W.T., Olsson, N.A., and Logan, R.A. see Tsang, W.T.
Liou, K.Y. Single-longitudinal-mode operation of injection laser coupled to a GRINROD external cavity p750
Lipscomb, G.F., Asawa, C.K., and Downs, J.W. Long-wavelength single-mode WDM for CATV applications p277
Lipscomb, G.F., Yao, S.K., and Asawa, C.K. see Yao, S.K.
Lipson, J., Bates, R.J.S., Spalink, J.D., Butterfield, S.J., Burrus, C.A., Lee, T.P., and Logan, R.A. see Bates, R.J.S.
Liu, E.S.K., and Turner, L.E. Quantisation effects in second-order wave digital filters p487
Livingstone, A., Tsubaki, K., Kawashima, M., Okamoto, H., and Kumabe, K. Field ionised impurity scattering in an AlGaAs/GaAs two-dimensional electron gas p619
Lizet, J., Valette, S., Mottier, P., Jadot, J.P., Renard, S., Fournier, A., Grouillet, A.M., Gidon, P., and Denis, H. see Valette, S.
Lizet, J., Valette, S., and Langeac, D. Reduction of temperature and vibration sensitivity of a polarimetric current sensor p578
Lo, Y.T., and Wright, S.M. see Wright, S.M.
Lo, Y.T., and Zhong, S.S. see Zhong, S.S.
Logan, R.A., Bates, R.J.S., Spalink, J.D., Butterfield, S.J., Lipson, J., Burrus, C.A., and Lee, T.P. see Bates, R.J.S.
Logan, R.A., Lin, Chinlon, Burrus, C.A., Linke, R.A., Kaminow, I.P., Ko, J.S., Dentai, A.G., and Miller, B.I. see Lin, Chinlon
Logan, R.A., Pearsall, T.P., and Bethea, C.G. see Pearsall, T.P.
Logan, R.A., Tsang, W.T., Olsson, N.A., and Linke, R.A. see Tsang, W.T.
Logan, R.A., Tsang, W.T., and Olsson, N.A. see Tsang, W.T.
Logan, R.A., van der Ziel, J.P., and Temkin, H. see van der Ziel, J.P.
Lohmann, A.W., Bartelt, H.O., Freude, W., and Grau, G.K. see Bartelt, H.O.
Loipez-Coronado, M., Aguilar, M., Martinez, M.T., Calleja, E., and Munnoz, E. Electroplated Au-GaAs$_{1-x}$P$_x$ and Au-Ga$_{1-x}$Al$_x$As Schottky barriers p666
Lombardi, F. Control of locally testable duplex system for large-scale implementation p392
Long, S.A., McAllister, M.W., and Conway, G.L. see McAllister, M.W.
Lorente, J., Puigcerver, M., Alonso, S., and Vilar, E. see Puigcerver, M.
Love, W.F., Bhagavatula, V.A., Spotz, M.S., and Keck, D.B. see Bhagavatula, V.A.
Lu, S.K.S. CAD broadband matching design p146
Lucas, T.N. Continued-fraction algorithm for biased model reduction p444
Lucas, T.N. Efficient algorithm for reduction by continued-fraction expansion about $s = 0$ and $s = a$ p991
Lucas, T.N. Linear system reduction by continued-fraction expansion about s = 0 and s = a alternately p244
Luk, K.M., and Yu, P.K. see Yu, P.K.
Lunardi, L., Ankri, D., Schaff, W.J., Barnard, J., and Eastman, L.F. see Ankri, D.
Lundström, I., Nylander, C., and Spetz, A. Palladium-silicondioxide-silicon structures as hydrogen sensors in electrolytes p249
Luo, X.C. Equivalence between sinusoidal roll-off and trapezoidal response functions p477
Lutz, P., and Weinrichter, H. Direct- and image-frequency transfer functions of time-variant switched-capacitor networks p354
Luus, Rein, and Yang, Sau-Man see Yang, Sau-Man
Lyons, W.G., Su, S.L., Tejayadi, O., Fischer, R., Kopp, W., Morkoc, H., Mclevige, W., and Yuan, H.T. see Su, S.L.

M

Maanders, E.J., Vissers, J.M.M., and Herben, M.H.A.J. see Vissers, J.M.M.
MacChesney, J.B., and Simpson, J.R. see Simpson, J.R.
Macchiarella, G., and Viola, G. Improved feed network for group-type unidirectional transducers p680
Macleod, M.D., and Bragg, N.L. Fast hardware implementation of the Winograd Fourier transform algorithm p363
Mactaggart, I.R., and Jack, M.A. Radix-2 FFT butterfly processor using distributed arithmetic p43
Maeda, Y., Yokoyama, T., and Hide, I. Polycrystalline silicon sheets for solar cells by improved spinning method p441
Maeda, Y., and Nakashima, S. see Nakashima, S.
Magarshack, J., Kohn, E., Mishra, U., and Eastman, L.F. see Kohn, E.
Maggiori, D., Migliorini, P., and Paraboni, A. Assessment of principal planes orientation in a terrestrial link at 18 GHz during intense rainfall p617
Makiuchi, M., Wada, O., Hamaguchi, H., Miura, S., Yamakoshi, S., Sakurai, T., Nakai, K., and Iguchi, K. see Wada, O.
Malhi, S.D.S., Shah, R.R., Shichijo, H., Pinizzotto, R.F., Chen, C.E., Chatterjee, P.K., and Lam, H.W. Effects of grain boundary passivation on the characteristics of p-channel MOSFETs in LPCVD polysilicon p993
Malik, R.J., Hayes, J.R., Capasso, F., Gossard, A.C., and Wiegmann, W. see Hayes, J.R.
Mallick, A.K., and Nair, N.V. see Nair, N.V.
Maloberti, F. Switched-capacitor building blocks for analogue signal processing p263
Malyon, D.J., Hodgkinson, T.G., Smith, D.W., and Booth, R.C. PSK homodyne receiver sensitivity measurements at 1.5 μm p144
Manning, J., Olshansky, R., Su, C.B., and Schlafer, J. see Olshansky, R.
Mapper, D., Sanderson, T.K., Stephen, J.H., and Farren, J. see Sanderson, T.K.
Maras, A.M., Davidson, H., and Holt, A.G.J. Error rates for M-ary noncoherent FSK in impulsive reverberation noise p405
Margalit, S., Katz, J., Kapon, E., Lindsey, C., and Yariv, A. see Katz, J.
Margalit, S., Rav-Noy, Z., Harder, C., Schreter, U., and Yariv, A. see Rav-Noy, Z.
Mark, J., Bossdtker, E., Tromborg, B., and Nielsen, C.J. see Bossdtker, E.
Marougi, S.D., and Sayhood, K.H. Signal-to-noise performance of the pulse-interval and width-modulation system p528
Marrone, M.J., and Rashleigh, S.C. see Rashleigh, S.C.
Marshall, I.W., Mitchell, A.F., O'Mahony, M.J., and Ainslie, B.J. see Mitchell, A.F.
Marten, P., Böhm, K., Weidel, E., and Petermann, K. see Böhm, K.
Martin, G.R., and Packwood, R.A. see Packwood, R.A.
Martin, R.J., Bowers, J.E., Coldren, L.A., Hemenway, B.R., and Miller, B.I. see Bowers, J.E.
Martinelli, G., Orlandi, G., Rocchini, C.A., and Salerno, M. Isomorphic FIR digital filters p71
Martinez, M.T., Loipez-Coronado, M., Aguilar, M., Calleja, E., and Munnoz, E. see Loipez-Coronado, M.

Massa, G.Di, and Bucci, O.M. see Bucci, O.M.
Matsumoto, Y., Kushibiki, J., and Chubachi, N. see Kushibiki, J.
Matsuoka, T., Asahi, H., Kawamura, Y., Noguchi, Y., and Nagai, H. see Asahi, H.
Matsuoka, T., Kitamura, M., Seki, M., Yamaguchi, M., Mito, I., Kobayashi, Ke., and Kobayashi, Ko. see Kitamura, M.
Matsushima, Y., Seki, N., Akiba, S., Noda, Y., and Kushiro, Y. Receiver sensitivity of InGaAsP/InP heterostructure avalanche photodiode with InGaAsP buffer layers at 1·5–1·6 μm region p845
Mattord, T.J., Erickson, L.P., Palmberg, P.W., and Fischer, R. see Erickson, L.P.
Mattriciani, E. Effects of filtering on statistics of rain-induced fade durations e30
Mavor, J., Petrie, N., and Smith, S.G. see Petrie, N.
Max, J.J., Curtins, H., and Shah, A.V. see Curtins, H.
Maydell-Ondrusz, E.A., Hemment, P.L.F., Stephens, K.G., and Scovell, P.D. see Hemment, P.L.F.
Mazur, J. Analysis of quasicyclic ferrite junction by point-matching technique p140
McAllister, M.W., Long, S.A., and Conway, G.L. Rectangular dielectric resonator antenna p218
McCanny, J.V., and McWhirter, J.G. Yield enhancement of bit level systolic array chips using fault tolerant techniques p525
McHugh, T.M., Lamb, J.G., and Harrison, A.P. see Lamb, J.G.
McMillan, J.L. Novel technique for measurement of wavelength of zero relative delay between modes of a dual-mode optical fibre p240
McWhirter, J.G. Systolic array for recursive least-squares minimisation p729
McWhirter, J.G., and McCanny, J.V. see McCanny, J.V.
Mclevige, W., Su, S.L., Lyons, W.G., Tejayadi, O., Fischer, R., Kopp, W., Morkoc,, H., and Yuan, H.T. see Su, S.L.
Meguro, T., Gautam, J.K., and Yamanouchi, K. see Gautam, J.K.
Meguro, T., Yamanouchi, K., and Gautam, J.K. see Yamanouchi, K.
Meissner, J. Radiation losses of E-plane groove-guide bends p527
Meidaner, D.R., Leviatan, Y., Adams, A.T., and Stockmann, P.H. see Leviatan, Y.
Meignant, D., and Binet, M. New ultra-high-speed GaAs strobed comparators p67
Mendis, F.V.C., Tjhung, T.T., and Lim, T.K. see Tjhung, T.T.
Mickelson, A.R., Eriksrud, M., and Ryen, N. see Eriksrud, M.
Migliorini, P., Maggiori, D., and Paraboni, A. see Maggiori, D.
Mikami, O., Akiya, H., Saitoh, T., and Nakagome, H. CW operation of 1.5 μm GaInAsP/InP buried-heterostructure laser with a reactive-ion-etched facet p213
Mikami, O., Mukai, T., Saitoh, T., and Kimura, T. see Mukai, T.
Mikami, O., Nakagome, H., and Saitoh, T. GaInAsP/InP buried-heterostructure optical waveguides at a 1.5 μm wavelength p593
Mikawa, T., Kaneda, T., Nishimoto, H., Motegi, M., and Okushima, H. Small-active-area germanium avalanche photodiode for single-mode fibre at 1.3 μm wavelength p452
Mikawa, T., Shirai, T., Kaneda, T., and Miyauchi, A. see Shirai, T.
Mikawa, T., Yasuda, K., Shirai, T., Kishi, Y., and Kaneda, T. see Yasuda, K.
Milano, R.A., Hong, C.S., Kasemset, D., and Kim, M.E. see Hong, C.S.
Miller, B.I., Bowers, J.E., Coldren, L.A., Hemenway, B.R., and Martin, R.J. see Bowers, J.E.
Miller, B.I., Damen, T.C., Duguay, M.A., and Lin, C. see Damen, T.C.
Miller, B.I., Hemenway, B.R., and Bowers, J.E. see Hemenway, B.R.
Miller, B.I., Kaminow, I.P., Stulz, L.W., Ko, J.-S., Feldman, R.D., DeWinter, J.C., and Pollack, M.A. see Kaminow, I.P.
Miller, B.I., Lin, Chinlon, Burrus, C.A., Linke, R.A., Kaminow, I.P., Ko, J.S., Dentai, A.G., and Logan, R.A. see Lin, Chinlon
Miller, D.L., Asbeck, P.M., Anderson, R.J., and Eisen, F.H. (GaAl)As/GaAs heterojunction bipolar transistors with graded composition in the base p367
Miller, D.M., and Eris, E. see Eris, E.
Milosavljevic, M., Jeyens, C., and Wilson, I.H. Low-temperature expitaxial growth of (100) silicon p669
Minemura, K., Suzuki, A., and Nomura, H. see Suzuki, A.
Mingam, H., Vu, D.P., Haond, M., D'Ouville, T.Ternisien, and Perio, A. see Vu, D.P.
Mircea, A., Post, G., Dimitriou, P., Scavennec, A., and Duhamel, N. see Post, G.
Mirsky, U., Samid, I., Benedek, M., and Yust, M. see Samid, I.
Misawa, S., Kokubun, Y., Suzuki, S., Fuse, T., Uehara, H., Iga, K., and Oikawa, M. see Kokubun, Y.
Mishra, U., Kohn, E., Magarshack, J., and Eastman, L.F. see Kohn, E.
Mitachi, S., Ohishi, Y., Takahashi, S., and Miyashita, T. see Ohishi, Y.
Mitchell, A.F., O'Mahony, M.J., Marshall, I.W., and Ainslie, B.J. Low-dispersion 1·55 μm optical system operating at 320 Mbaud over 103·5 km p1028
Mitchell, A.F., O'Mahony, M.J., and Boxall, B.A. PIN-bipolar optical receiver using a high-frequency high-beta transistor p445
Mitera, H., Yashima, H., and Itoh, Y. see Yashima, H.
Mito, I., Kitamura, M., Seki, M., Yamaguchi, M., Kobayashi, Ke., Kobayashi, Ko., and Matsuoka, T. see Kitamura, M.
Mito, I., Murata, S., Kitamura, M., Yamaguchi, M., and Kobayashi, K. see Murata, S.
Mito, I., Yanase, T., Kato, Y., Yamaguchi, M., Nishi, K., Kobayashi, K., and Lang, R. see Yanase, T.
Mitsunaga, Y., Uesugi, N., Murakami, Y., Tanaka, C., Ishida, Y., Negishi, Y., and Uchida, N. see Uesugi, N.
Miura, S., Ito, M., Wada, O., Nakai, K., and Sakurai, T. see Ito, M.
Miura, S., Wada, O., Hamaguchi, H., Makiuchi, M., Yamakoshi, S., Sakurai, T., Nakai, K., and Iguchi, K. see Wada, O.
Miyamoto, Y., Sugou, S., Kameyama, A., Katsuda, H., Furuya, K., and Suematsu, Y. see Sugou, S.
Miyashita, T., Ohishi, Y., Mitachi, S., and Takahashi, S. see Ohishi, Y.
Miyata, K., and Suzuki, M. Effects of choke-load position on radiation properties in double-choked small horn antennas p329
Miyauchi, A., Shirai, T., Mikawa, T., and Kaneda, T. see Shirai, T.
Mizuno, S., Pearson, D.E., and Robinson, J.A. Real-time feature-extraction architecture for moving-picture transmission over telephone lines p949
Mizushima, Y., Yamada, S., and Urisu, T. see Yamada, S.
Mochizuki, K., Namihira, Y., Kuwazuru, M., and Iwamoto, Y. see Namihira, Y.
Mochizuki, K., Namihira, Y., and Yamamoto, H. Transmission loss increase in optical fibres due to hydrogen permeation p743
Mochizuki, K., Tokiwa, H., and Wakabayashi, H. see Tokiwa, H.
Moeller, R.P., and Burns, W.K. Depolarised broad-band source p187
Mohsen, A., Sebak, A.A., and Shafai, L. see Sebak, A.A.
Mojzes, I., Szigethy, D., and Veresegyhazy, R. In situ mass spectrometric investigation of metallised InP samples during annealing p117
Monks, T., Paige, E.G.S., and Woods, R.C. SAW convolvers using the transverse-horizontal bilinear field p466
Morgan, G.B., and Davidson, K.W. Low-insertion-loss, temparature-compensated dielectric filters for microwave integrated circuits p545
Morkoç, H., Fischer, R., Arnold, D., Thorne, R.E., and Drummond, T.J. see Fischer, R.
Morkoç, H., Su, S.L., Lyons, W.G., Tejayadi, O., Fischer, R., Kopp, W., Mclevige, W., and Yuan, H.T. see Su, S.L.
Morkoç, H., Drummond, T.J., Kopp, W., Arnold, D., Fischer, R., Erickson, L.P., and Palmberg, P.W. see Drummond, T.J.
Morkoç, H., Fischer, R., Drummond, T.J., Kopp, W., Lee, K., and Shur, M.S. see Fischer, R.
Morkocced, H., Klem, J., Fischer, R., Drummond, T.J., and Cho, A.Y. see Klem, J.
Morris, A.S. Simple model order reduction by truncation with performance verification by fast digital simulation p343
Moschytz, G.S., and Fischer, G. see Fischer, G.
Motegi, M., Mikawa, T., Kaneda, T., Nishimoto, H., and Okushima, H. see Mikawa, T.
Motegi, M., Nishimoto, H., and Kuwahara, H. see Nishimoto, H.
Motley, A.J., and Alexander, S.E. Diversity advantage for cordless telephones p531
Motley, A.J., and Palmer, D.A. Reduced long-range signal reception with leaky feeders p714
Motosugi, G., Nakano, Y., Yoshikuni, Y., and Ikegami, T. see Nakano, Y.
Mottet, S., and Henry, L. Photochemical micro-etching of GaAs p919
Mottier, P., Valette, S., Lizet, J., Jadot, J.P., Renard, S., Fournier, A., Grouillet, A.M., Gidon, P., and Denis, H. see Valette, S.
Moupfouma, F. Theoretical model for calculating rain-induced crosspolarisation p467
Moupfouma, F. Two-parameter empirical model for rainfall rate distribution p800
Moustakas, S., and Witte, H.-H. see Witte, H.-H.
Moustakas, S., and Witte, H.H. Novel collision detection technique for CSMA/CD based fibre-optic local area networks p592
Müller, T., and Heinlein, W.E. Comparing the chromatic dispersions of two single-mode silica fibres with pure F and pure GeO_2 doping, respectively p692
Mühlich, A., Heitmann, W., and Bonewitz, H.U. see Heitmann, W.
Müller, T. Resolution improvement in refracted near-field index measurement by a lens-shaped liquid cell p580
Muehlhoff, H.-M., Coon, D.D., Gunapala, S., and Karunasiri, R.P.G. see Coon, D.D.
Mukai, T., Patzak, E., Olesen, H., Sugimura, A., and Saito, S. see Patzak, E.
Mukai, T., Patzak, E., Sugimura, A., Saito, S., and Olesen, H. see Patzak, E.
Mukai, T., Saitoh, T., Mikami, O., and Kimura, T. Fabry-Perot cavity type 1.5 μm InGaAsP BH-laser amplifier with small optical-mode confinement p582
Muller, G., Grothe, H., Harth, W., and Proebster, W. see Grothe, H.
Mun, J., Badawi, M.H., and Dunbobbin, D.R. see Badawi, M.H.
Munnoz, E., Loipez-Coronado, M., Aguilar, M., Martinez, M.T., and Calleja, E. see Loipez-Coronado, M.
Murakami, Y., Kimura, Y., Noguchi, K., and Ishihara, K. see Kimura, Y.
Murakami, Y., Noguchi, K., and Ishihara, K. see Noguchi, K.
Murakami, Y., Uesugi, N., Tanaka, C., Ishida, Y., Mitsunaga, Y., Negishi, Y., and Uchida, N. see Uesugi, N.
Murata, S., Kitamura, M., Yamaguchi, M., Mito, I., and Kobayashi, K. High-power aging test on 1·3 μm DC-PBH lasers with reflective coated mirror p1084
Murthy, H.S.N., and Reddy, P.S. see Reddy, P.S.
Murti, V.G.K. Digital control of a two-terminal resistance p514

N

Nagai, H., Asahi, H., Kawamura, Y., Noguchi, Y., and Matsuoka, T. see Asahi, H.
Nagai, K., Hayashi, Y., and Sekigawa, T. Capacitance/voltage characteristics of semiconductor-insulator-semiconductor (SIS) structure p376
Nagamatsu, M., Kikuchi, K., Okoshi, T., and Henmi, N. see Kikuchi, K.
Nagata, K., Hohkawa, K., Tazo, Y., and Ishida, A. see Hohkawa, K.
Nagia, H., Kawamura, Y., Asahi, H., and Ikegami, T.T. see Kawamura, Y.
Nair, N.V., and Mallick, A.K. Broadband microstrip directional coupler p809
Nakagami, T., Kuwahara, H., and Chikama, T. see Kuwahara, H.
Nakagawa, K., Yamamoto, F., Shuto, Y., and Yamakawa, S. see Yamamoto, F.
Nakagawa, T., Kawai, N.J., Ohta, K., and Kawashima, M. New negative-resistance device by a chirp superlattice p822
Nakagome, H., Mikami, O., Akiya, H., and Saitoh, T. see Mikami, O.
Nakagome, H., Mikami, O., and Saitoh, T. see Mikami, O.
Nakahara, M., Ohmori, Y., Itoh, H., and Inagaki, N. see Ohmori, Y.
Nakahara, M., Ohmori, Y., and Itoh, H. ESR study on loss increase of 500°C heat-treated Ge-doped optical fibres p1004
Nakai, K., Ito, M., Wada, O., Miura, S., and Sakurai, T. see Ito, M.
Nakai, K., Wada, O., Hamaguchi, H., Miura, S., Makiuchi, M., Yamakoshi, S., Sakurai, T., and Iguchi, K. see Wada, O.
Nakamura, K., Sasaki, H., and Shimizu, H. Influence of substrate conductivity on characteristics of ZnO/SiO_2-diaphragm piezoelectric resonators p521
Nakano, H., Yamauchi, J., and Hashimoto, S. Numerical analysis of 4-arm Archimedean spiral antenna p78
Nakano, H., Yamauchi, J., and Nogami, K. Effects of wire radius and arm bend on a rectangular spiral antenna p957
Nakano, Y., Fukuda, M., Sudo, H., Fujita, O., and Iwane, G. Thermally accelerated degradation of 1.3 μm BH lasers p567
Nakano, Y., Motosugi, G., Yoshikuni, Y., and Ikegami, T. Aging characteristics of InGaAsP/InP DFB lasers p437
Nakashima, S., Akiya, M., and Kato, K. Electric-field-shielding layers formed by oxygen implantation into silicon p568
Nakashima, S., and Maeda, Y. Subscriber line interface circuit LSI fabricated using high-voltage CMOS/SIMOX technology p1095
Nakwaski, W. Simple formulas giving temperature profiles in active layer of stripe-geometry laser diode without oxide barriers p368
Naldi, C., and Ghione, G. see Ghione, G.
Namihira, Y., Mochizuki, K., Kuwazuru, M., and Iwamoto, Y. Effects of hydrogen diffusion on optical fibre loss increase p1034
Namihira, Y., Mochizuki, K., and Yamamoto, H. see Mochizuki, K.
Namihira, Y., Yamamoto, H., and Niiro, Y. see Yamamoto, H.
Namizaki, H., Higuchi, H., Oomura, E., Hirano, R., Sakakibara, Y., Susaki, W., and Fujikawa, K. see Higuchi, H.
Namizaki, H., Oomura, E., Higuchi, H., Hirano, R., Sakakibara, Y., and Susaki, W. see Oomura, E.
Nandi, R., Nandi, S., and Jana, P.B. see Nandi, S.
Nandi, R., Saha, A.R., and Nandi, S. see Saha, A.R.
Nandi, S., Jana, P.B., and Nandi, R. Floating ideal FDNR using current conveyors p251
Nandi, S., Saha, A.R., and Nandi, R. see Saha, A.R.
Nanjo, J., Yamamoto, H., Arimoto, S., Hasegawa, H., and Ohno, H. see Yamamoto, H.

Narraway, J.J., and Venkatesan, R. see Venkatesan, R.
Nasrabadi, N., and King, R. Computationally efficient discrete cosine transform algorithm p24
Nasrabadi, N.M., Pal, S.K., and King, R.A. Entropy-coded hybrid differential pulse-code modulation p63
Nasrabadi, N.M., and King, R.A. Fast digital convolution using p-adic transforms p266
Nazoa-Ruiz, N., and Aitchison, C.S. Electronic frequency tuning of trapatt oscillators p493
Negishi, Y., Uesugi, N., Murakami, Y., Tanaka, C., Ishida, Y., Mitsunaga, Y., and Uchida, N. see Uesugi, N.
Nelson, A.W., Westbrook, L.D., and Dix, C. see Westbrook, L.D.
Nelson, A.W., Westbrook, L.D., and Evans, J.S. Deformation-free overgrowth of InGaAsP DFB corrugations p34
Nelson, A.W., Westbrook, L.D., and Fiddyment, P.J. see Westbrook, L.D.
Nelson, R.J., Lee, T.P., Burrus, C.A., and Linke, R.A. see Lee, T.P.
Neve, A.C., Russo, G.V., and Palama, G. see Russo, G.V.
Newton, S.A., Howland, R.S., Jackson, K.P., and Shaw, H.J. High-speed pulse-train generation using single-mode-fibre recirculating delay lines p756
Newton, S.A., and Cross, P.S. Microwave-frequency response of an optical-fibre delay-line filter p480
Neyer, A. Electro-optic X-switch using single-mode Ti:$LiNbO_3$ channel waveguides p553
Nguyen, D.T. Efficient algorithm for adaptive normalised lattice filters p1098
Nicolaisen, E., and Danielsen, P. Calculated and measured spot size of equivalent Gaussian field in single-mode optical fibres p27
Nielsen, C.J., Bossdtker, E., Tromborg, B., and Mark, J. see Bossdtker, E.
Nielsen, C.J., and Osmundsen, J.H. New approach towards frequency stabilisation of linewidth-narrowed semiconductor lasers p644
Niggebrügge, U., Bornholdt, C., Döldissen, W., Franke, D., Grote, N., Krauser, J., Nolting, H.P., Schlak, M., and Tiedke, I. see Bornholdt, C.
Niiro, Y., Yamamoto, H., and Namihira, Y. see Yamamoto, H.
Nikoonahad, M., Sivaprakasapillai, P., and Ash, E.A. Rayleigh wave suppression in reflection acoustic microscopy p906
Nikoonahad, M., Yue, G.Q., and Ash, E.A. Pulse compression acoustic microscopy at 750 MHz p782
Nishi, K., Yanase, T., Kato, Y., Mito, I., Yamaguchi, M., Kobayashi, K., and Lang, R. see Yanase, T.
Nishihara, A. Characterisation of second-order discrete-time filters p84
Nishimoto, H., Kuwahara, H., and Motegi, M. Injection-locked 1.5 μm InGaAsP/InP lasers capable of 450 Mbit/s transmission over 106 km p509
Nishimoto, H., Mikawa, T., Kaneda, T., Motegi, M., and Okushima, H. see Mikawa, T.
Nishioka, T., Ohmachi, Y., and Shinoda, Y. see Ohmachi, Y.
Noda, J., Sasaki, Y., Hosaka, Y., and Takada, K. see Sasaki, Y.
Noda, J., Takada, K., and Sasaki, Y. see Takada, K.
Noda, Y., Matsushima, Y., Seki, N., Akiba, S., and Kushiro, Y. see Matsushima, Y.
Nogami, K., Nakano, H., and Yamauchi, J. see Nakano, H.
Noguchi, K., Kimura, Y., Murakami, Y., and Ishihara, K. see Kimura, Y.
Noguchi, K., Murakami, Y., and Ishihara, K. Infrared loss spectrum of hydrogen molecules in a silica fibre p1045
Noguchi, K., Yoshizawa, N., and Yabuta, T. see Yoshizawa, N.
Noguchi, Y., Asahi, H., Kawamura, Y., Matsuoka, T., and Nagai, H. see Asahi, H.
Nolting, H.P., Bornholdt, C., Döldissen, W., Franke, D., Grote, N., Krauser, J., Niggebrügge, U., Schlak, M., and Tiedke, I. see Bornholdt, C.
Nomura, H., Kasahara, K., Sugimoto, M., and Suzuki, S. see Kasahara, K.
Nomura, H., Suzuki, A., and Minemura, K. see Suzuki, A.
Nosu, K., Rashleigh, S.C., Taylor, H.F., and Weller, J.F. Acousto-optic frequency shifter for single-mode fibres p816
Nosu, K., Raylor, H.F., Rashleigh, S.C., and Weller, J.F. Acousto-optic phase modulator for single-mode fibres p605
Nouri, M. Uplink depolarisation control in TV feeder link earth stations p374
Nylander, C., Lundström, I., and Spetz, A. see Lundström, I.

O

O'Mahony, M.J., Mitchell, A.F., Marshall, I.W., and Ainslie, B.J. see Mitchell, A.F.
O'Mahony, M.J., Mitchell, A.F., and Boxall, B.A. see Mitchell, A.F.
O'Mahony, M.J., and Henning, I.D. Semiconductor laser linewidth broadening due to 1/f carrier noise p1000
Ogusu, K. New dielectric waveguide structure for millimetre-wave optical control p253
Ohashi, M., Uesugi, N., Kuwabara, T., Ishida, Y., and Uchida, N. see Uesugi, N.
Ohishi, Y., Mitachi, S., Takahashi, S., and Miyashita, T. g-ray irradiation effect on transmission loss for ZrF_4 based optical fibres p830
Ohmachi, Y., Nishioka, T., and Shinoda, Y. Geseeded crystallisation on SiO_2 by using a slider system with RF heated strip heater p274
Ohmori, Y., Itoh, H., Nakahara, M., and Inagaki, N. Loss increase in silicone-coated fibres with heat treatment p1006
Ohmori, Y., Nakahara, M., and Itoh, H. see Nakahara, M.
Ohno, H., Arimoto, S., Yamamoto, H., and Hasegawa, H. see Arimoto, S.
Ohno, H., Hsieh, K.H., Wicks, G., and Eastman, L.F. see Hsieh, K.H.
Ohno, H., Yamamoto, H., Arimoto, S., Hasegawa, H., and Nanjo, J. see Yamamoto, H.
Ohno, H., Yamamoto, H., Sawada, T., Arimoto, S., and Hasegawa, H. see Yamamoto, H.
Ohta, K., Nakagawa, T., Kawai, N.J., and Kawashima, M. see Nakagawa, T.
Ohta, N., and Takada, T. High-speed GaAs SCFL monolithic integrated decision circuit for Gbit/s optical repeaters p983
Oikawa, M., Kokubun, Y., Suzuki, S., Fuse, T., Uehara, H., Iga, K., and Misawa, S. see Kokubun, Y.
Okamoto, H., Livingstone, A., Tsubaki, K., Kawashima, M., and Kumabe, K. see Livingstone, A.
Okamoto, K., Birch, R.D., Varnham, M.P., and Payne, D.N. see Birch, R.D.
Okamoto, K., Varnham, M.P., Barlow, A.J., and Payne, D.N. see Varnham, M.P.
Okoshi, T., Aihara, T., and Kikuchi, K. Prediction of the ultimate performance of side-tunnel single-polarisation fibre p1080
Okoshi, T., Kikuchi, K., Nagamatsu, M., and Henmi, N. see Kikuchi, K.
Okoshi, T., and Kikuchi, K. see Kikuchi, K.
Okuda, H., Hirayama, Y., Kinoshita, J., Furuyama, H., and Uematsu, Y. High-quality 1·3 μm GaInAsP/InP BH-DFB lasers with first-order gratings p941
Okuda, H., Kinoshita, J., Hirayama, Y., and Uematsu, Y. Longitudinal-mode characteristics for 1.3 μm GaInAsP/InP DFB lasers just below the threshold current p362
Okuda, H., Kinoshita, J., and Uematsu, Y. see Kinoshita, J.
Okushima, H., Mikawa, T., Kaneda, T., Nishimoto, H., and Motegi, M. see Mikawa, T.
Olesen, H., Osmundsen, J.H., and Tromborg, B. see Osmundsen, J.H.
Olesen, H., Patzak, E., Sugimura, A., Saito, S., and Mukai, T. see Patzak, E.
Oliner, A.A., and Lampariello, P. see Lampariello, P.
Olshansky, R., Su, C.B., Manning, J., and Schlafer, J. Analysis of radiative and nonradiative recombination law in lightly doped InGaAsP lasers p867
Olsson, N.A., Tsang, W.T., Linke, R.A., and Logan, R.A. see Tsang, W.T.
Olsson, N.A., Tsang, W.T., Logan, R.A., and Linke, R.A. see Tsang, W.T.
Olsson, N.A., Tsang, W.T., and Logan, R.A. see Tsang, W.T.
Olsson, N.A., and Tsang, W.T. Wideband frequency-shift keying with a spectrally bistable cleaved coupled cavity semiconductor laser p808
Oomura, E., Higuchi, H., Hirano, R., Sakakibara, Y., Namizaki, H., Susaki, W., and Fujikawa, K. see Higuchi, H.
Oomura, E., Higuchi, H., Hirano, R., Sakakibara, Y., Namizaki, H., and Susaki, W. Degredation mechanism in 1.3 μm InGaAsP/InP buried crescent laser diode at a high temperature p407
Orchard, H.J., Temes, G.C., and Cataltepe, T. General sensitivity formulas for lossless two-ports p576
Orlandi, G., Martinelli, G., Rocchini, C.A., and Salerno, M. see Martinelli, G.
Osiniski, M., and Adams, M.J. see Adams, M.J.
Osmundsen, J.H., Tromborg, B., and Olesen, H. Experimental investigation of stability properties for a semiconductor laser with optical feedback p1068
Osmundsen, J.H., and Nielsen, C.J. see Nielsen, C.J.
Ostrowsky, D.B., Desurvire, E., Papuchon, M., Pocholle, J.P., and Raffy, J. see Desurvire, E.
Otsuka, K. Coupled-wave theory regarding phase-locked-array lasers p723
Otsuka, K., Iwamura, H., Saku, T., Ishibashi, T., and Horikoshi, Y. see Iwamura, H.
Otsuka, K., Kobayashi, H., Iwamura, H., and Saku, T. see Kobayashi, H.
Otsuka, K., and Kawaguchi, H. see Kawaguchi, H.
Otsuka, K., and Kobayashi, S. Optical bistability and nonlinear resonance in a resonant-type semiconductor laser amplifier p262
Ourmazd, A., Birch, R.D., Varnham, M.P., Payne, D.N., and Tarbox, E.J. Enhancement of birefringence in polarisation-maintaining fibres by thermal annealling p143
Owens, J.M., Chang, Kok Wai, and Carter, R.L. see Chang, Kok Wai
Ozeki, M., Komeno, J., and Takikawa, M. see Komeno, J.

P

Packwood, R.A., and Martin, G.R. Coding technique for progressive transmission of static images p412
Paek, U.C., and Schroeder, C.M. High-strength silica fibres in a long length coated at a speed of 5 m/s p965
Paige, E.G.S., Bloch, P.D., and Doe, N.G. see Bloch, P.D.
Paige, E.G.S., Monks, T., and Woods, R.C. see Monks, T.
Pal, J. Improved Padé approximants using stability equation method p426
Pal, S.K., Nasrabadi, N.M., and King, R.A. see Nasrabadi, N.M.
Palama, G., Russo, G.V., and Neve, A.C. see Russo, G.V.
Palmberg, P.W., Drummond, T.J., Kopp, W., Arnold, D., Fischer, R., Morkoç, H., and Erickson, L.P. see Drummond, T.J.
Palmberg, P.W., Erickson, L.P., Mattord, T.J., and Fischer, R. see Erickson, L.P.
Palmer, D.A., and Motley, A.J. see Motley, A.J.
Pang, Y.M., Chen, C.Y., Alavi, K., Cho, A.Y., and Garbinski, P.A. see Chen, C.Y.
Pang, Y.M., Chen, C.Y., and Garbinski, P.A. 1.5 GHz operation of an $Al_xGa_{1-x}As/GaAs$ modulation-doped photoconductive detector p716
Paoli, T.L., Lindström, C., Burnham, R.D., Scifres, D.R., and Streifer, W. see Lindström, C.
Paoli, T.L., Lindström, C., Burnham, R.D., Streifer, W., and Scifres, D.R. see Lindström, C.
Paoli, T.L., Scifres, D.R., Lindström, C., Burnham, R.D., and Streifer, W. see Scifres, D.R.
Papanicolaou, N.A., and Christou, A. Au-Mg improved ohmic constants to p-GaAs p418
Papiernik, A., Jecko, F., and Penaud, N. see Jecko, F.
Papiernik, A., and Jecko, F. see Jecko, F.
Papuchon, M., Desurvire, E., Pocholle, J.P., Raffy, J., and Ostrowsky, D.B. see Desurvire, E.
Papuchon, M., Pocholle, J.P., Raffy, J., and Auge, J. see Pocholle, J.P.
Papuchon, M., and Vatoux, S. Integrated optical polariser on $LiNbO_3$: Ti channel waveguides using proton exchange p612
Paraboni, A., Maggiori, D., and Migliorini, P. see Maggiori, D.
Parker, D.W., and Jenkins, D.A. see Jenkins, D.A.
Parker, E.A., El-Morsy, M.A.A., and Langley, R.J. see El-Morsy, M.A.A.
Parker, E.A., and Langley, R.J. see Langley, R.J.
Parker, E.A., and Vardaxoglou, J.C. see Vardaxoglou, J.C.
Parker, S.R., Lim, Yong Ching, and Kayran, A.H. see Lim, Yong Ching
Pask, C., and Rühl, F. Effects of loss on equivalent-step-index fibre determination p643
Pask, C., and Rühl, F. New method for equivalent-step-index fibre determination p658
Patel, D., Saitto, A., Doro, G., and Trombetta, B. see Saitto, A.
Patel, N.B., Prince, F.C., Kasemset, D., and Hong, C.S. see Prince, F.C.
Patzak, E., Olesen, H., Sugimura, A., Saito, S., and Mukai, T. Spectral linewidth reduction in semiconductor lasers by an external cavity with weak optical feedback p938
Patzak, E., Sugimura, A., Saito, S., Mukai, T., and Olesen, H. Semiconductor laser linewidth in optical feedback configurations p1026
Payne, D.N., Birch, R.D., Varnham, M.P., and Okamoto, K. see Birch, R.D.
Payne, D.N., Ourmazd, A., Birch, R.D., Varnham, M.P., and Tarbox, E.J. see Ourmazd, A.
Payne, D.N., Varnham, M.P., Barlow, A.J., and Okamoto, K. see Varnham, M.P.
Peach, R.C. Generalised lattice transformation for crystal filters p358
Pearsall, T.P., Alavi, K., Forrest, S.R., and Cho, A.Y. see Alavi, K.
Pearsall, T.P., Logan, R.A., and Bethea, C.G. GaInAs/InP large bandwidth (>2 GHz) PIN detectors p611
Pearson, D.E. Evaluation of feature-extracted images for deaf communication p629
Pearson, D.E., Mizuno, S., and Robinson, J.A. see Mizuno, S.
Pearson, D.E., and Crawford, D.I. see Crawford, D.I.
Pearton, S.J., Haller, E.E., and Elliott, A.G. Hydrogenation of electron traps in bulk GaAs and GaP p1052
Peiro, J., and Garcia-Lopez, J.A. see Garcia-Lopez, J.A.
Penard, E., and Daniel, J.P. Mutual coupling between short-circuited microstrip antennas p178
Penaud, N., Jecko, F., and Papiernik, A. see Jecko, F.
Perio, A., Vu, D.P., Haond, M., D'Ouville, T.Ternisien, and Mingam, H. see Vu, D.P.
Perkins, W.H., Chao, P.C., Yu, T., Smith, P.M., Wanuga, S., Hwang, J.C.M., Lee, H., Eastman, L.F., and Wolf, E.D. see Chao, P.C.
Petermann, K. Constraints for fundamental-mode spot size for broadband dispersion-compensated single-mode fibres p712
Petermann, K., Böhm, K., Marten, P., and Weidel,

E. see Böhm, K.
Petrie, N., Mavor, J., and Smith, S.G. General-purpose adaptor structure for wave-digital-filter realisation p1038
Petry, F.E. Two's complement extension of a parallel binary division by ten p718
Pfeiffer, Th., Heidemann, R., and Jäger, D. see Heidemann, R.
Pfister, J.C., Colinge, J.P., Bensahel, D., Alamome, M., and Haond, M. see Colinge, J.P.
Picon, O., Helard, M., Citerne, J., and Fouad-Hanna, V. see Helard, M.
Pierri, R., D'Elia, G., and Leone, G. see D'Elia, G.
Pinizzotto, R.F., Malhi, S.D.S., Shah, R.R., Shichijo, H., Chen, C.E., Chatterjee, P.K., and Lam, H.W. see Malhi, S.D.S.
Pinson, J.T., and Hulme, K.F. see Hulme, K.F.
Platte, W., and Renz, W. Measurement of small optically pulse-modulated reflection coefficients p625
Pleibel, W., Stolen, R.H., and Rashleigh, S.C. Polarisation-preserving coupler with self-aligning birefringent fibres p825
Plotnichenko, V.G., Vasiliev, A.V., Dianov, E.M., Sysoev, V.K., Bagrov, A.M., Baikalov, P.I., Devyatykh, G.G., Scripachev, I.V., and Churbanov, M.F. see Vasiliev, A.V.
Plumb, R.G., White, I.H., and Carroll, J.E. see White, I.H.
Pocholle, J.P., Desurvire, E., Papuchon, M., Raffy, J., and Ostrowsky, D.B. see Desurvire, E.
Pocholle, J.P., Raffy, J., Auge, J., and Papuchon, M. Determination of modal dispersion in monomode fibres from wavelength dependence of the mode spot size p1093
Pocholle, J.P., and Auge, J. New simple method for measuring the mode spot size in monomode fibres p191
Pollack, M.A., Kaminow, I.P., Stulz, L.W., Ko, J.-S., Miller, B.I., Feldman, R.D., and De Winter, J.C. see Kaminow, I.P.
Porter, B., and Jones, A.H. Frequency-domain identification of transmission-zero locations of linear multivariable plants p258
Post, G., Dimitriou, P., Scavennec, A., Duhamel, N., and Mircea, A. InP MIS transistors with grown-in sulphur dielectric p459
Potenza, M., Coppa, G., Di Vita, P., and Rossi, U. see Coppa, G.
Potter, C.M., and Snowden, C.M. Extended calibration aid for six-port network analysers p787
Potter, C.M., and Snowden, C.M. Low-cost integrated RF six-port p815
Poulissen, J., Khoe, G.D., and deVrieze, H.M. see Khoe, G.D.
Prabhakar, A., Singh, S.P., and Bhattacharyya, A.B. see Singh, S.P.
Prakash, S., and Heyden, F.V.D. Normalisation of Fourier descriptors of planar shapes p828
Prasad, K.P., and Unbehauen, R. Analytical expressions of 2-D complex cepstrum p831
Pribetich, P., Kennis, P., and Toutain, S. Dispersion characteristics and energy configurations of a microstrip line with tuning septums laid on a lossy material p242
Pribetich, P., Seguinot, C., and Kennis, P. see Seguinot, C.
Price, A.J., and Chamberlain, J.K. see Chamberlain, J.K.
Prince, F.C., Patel, N.B., Kasemset, D., and Hong, C.S. Long delay time for lasing in very narrow graded barrier single-quantum-well lasers p435
Proebster, W., Grothe, H., Muller, G., and Harth, W. see Grothe, H.
Proebster, W., and Grothe, H. see Grothe, H.
Puigcerver, M., Alonso, S., Lorente, J., and Vilar, E. Long-term precipitation rate statistics for north-east of Spain p129
Puleo, M., Costa, B., and Vezzoni, E. see Costa, B.

R

Ra, J.-W., Kim, S.-Y., and Shin, S.-Y. see Kim, S.-Y.
Ra, Jung-Woong, Johnson, S.A., and Yoon, Tae-Hoon see Johnson, S.A.
Ra, Jung-Woong, Lee, Yong-Hee, and Hong, Dong-Hee see Lee, Yong-Hee
Räisänen, A., Lehto, A., Tiuri, M., and Lamb, J. Performance of a cryogenic 3 mm Schottky-mixer receiver on the Metsähovi 14 m radio telescope p892
Raffin, G., Bourret, G., Doll, A., Bassier, G., and Jurczyszyn, M. see Bourret, G.
Raffy, J., Desurvire, E., Papuchon, M., Pocholle, J.P., and Ostrowsky, D.B. see Desurvire, E.
Raffy, J., Pocholle, J.P., Auge, J., and Papuchon, M. see Pocholle, J.P.
Ragaie, H.F. Grain boundary diffusion in columnar structure polycrystalline materials p294
Rahim, T. Analysis of the element pattern shape for circular arrays p838
Ramachandran, V., Ananda Mohan, P.V., and Swamy, M.N.S. see Ananda Mohan, P.V.
Ramanujam, P., Brown, R.C., and Clarricoats, P.J.B. see Brown, R.C.
Ramchandran, V., Golikeri, S., and Ahmadi, M. see Golikeri, S.
Rao, K.A.G. Eigenvalue sensitivity method for optimal stabilisation of linear systems.(Comment) p339
Rao, K.V.S., and Garg, Ramesh see Garg, Ramesh
Rao, M.V., and Bhattacharya, P.K. Postgrowth heat-treatment effects in high-purity liquid-phase-epitaxial $In_{0.53}Ga_{0.47}As$ p196
Rashleigh, S.C., Nosu, K., Raylor, H.F., and Weller, J.F. see Nosu, K.
Rashleigh, S.C., Nosu, K., Taylor, H.F., and Weller, J.F. see Nosu, K.
Rashleigh, S.C., Pleibel, W., and Stolen, R.H. see Pleibel, W.
Rashleigh, S.C., and Marrone, M.J. Polarisation holding in coiled high-birefringence fibres p850
Rathore, T.S. Digitally controlled amplifiers with fewer resistors and sensitivities p646
Rauscher, C., Goldberg, L., Weller, J.F., and Taylor, H.F. see Goldberg, L.
Rav-Noy, Z., Harder, C., Schreter, U., Margalit, S., and Yariv, A. High-speed Schottky photodiode on semi-insulating GaAs p753
Ray, U.C., Jain, S.C., and Agarwal, S.K. see Jain, S.C.
Raylor, H.F., Nosu, K., Rashleigh, S.C., and Weller, J.F. see Nosu, K.
Razeghi, M., Hersee, S., Hirtz, P., Blondeau, R., de Cremoux, B., and Duchemin, J.P. Very low threshold GaInAsP/InP double-heterostructure lasers grown by LP MOCVD p336
Razeghi, M., Hirtz, P., Blondeau, R., de Cremoux, B., and Duchemin, J.P. Aging test of MOCVD shallow proton stripe GaInAsP/InP, DH laser diode emitting at 1.5 μm p481
Reddy, P.S., and Murthy, H.S.N. Stabilisation of 2-D digital filters via Hilbert transform p68
Reed, I.S., and Truong, T.K. New syndrome decoder for (n, 1) convolutional codes p344
Reeve, M.H., Kashyap, R., Hornung, S., and Cassidy, S.A. see Kashyap, R.
Rehme, H., and Schink, H.K. see Schink, H.K.
Reklaitis, A., and Gruzyinskis, V. see Gruzyinskis, V.
Renard, S., Valette, S., Lizet, J., Mottier, P., Jadot, J.P., Fournier, A., Grouillet, A.M., Gidon, P., and Denis, H. see Valette, S.
Renz, H., Speier, P., Scholz, F., Benz, K.W., and Weidlein, J. see Speier, P.
Renz, W., and Platte, W. see Platte, W.
Rice, C.E., Jackel, J.L., and Veselka, J.J. see Jackel, J.L.
Riou, J., Scavennec, A., Ankri, D., Besombes, C., Courbet, C., and Heiliot, F. see Scavennec, A.
Riris, A., and Aitchison, C.S. Predicted large-signal performance improvement by active compensation in microwave impatt amplifiers p1090
Rivoallan, L., Guilloux, J.Y., and Lamouler, P. Monomode fibre fusion splicing with CO_2 laser p54
Roberts, D.H. VLSI—are smaller devices and more complex chips mutually exclusive? p1
Roberts, J.B.G., and Simpson, P. see Simpson, P.
Robertson, M.J. Effects of 140 Mbit/s operation on degradation of GaAlAs DH lasers p88
Robinson, J.A., Mizuno, S., and Pearson, D.E. see Mizuno, S.
Robles-Diaz, R., Acha, J.I., and Ayerbe, A. see Acha, J.I.
Rocchini, C.A., Martinelli, G., Orlandi, G., and Salerno, M. see Martinelli, G.
Roedel, R.J., and Edwards, J.L. see Edwards, J.L.
Roederer, A.G., and Crone, G.A.E. see Crone, G.A.E.
Rogers, A.J., and Farries, M.C. see Farries, M.C.
Rogers, P., and Cooper, D.C. see Cooper, D.C.
Rollett, J.M. Easily trimmed third-order RC-active-filter section with finite transmission zeros p677
Rose, R.J., and Heron, M.L. see Heron, M.L.
Rossi, U., Coppa, G., and DiVita, P. see Coppa, G.
Rossi, U., Coppa, G., diVita, P., and Potenza, M. see Coppa, G.
Roth, A.P., Yakimova, R., and Sundaram, V.S. Low-pressure MOVPE growth of Sn-doped GaAs p1062
Roth, W., Schumacher, H., and Beneking, H. Fast photoconductive GaAs detectors made by laser stimulated MOCVD p142
Roulston, D.J., and Depey, M. Computer simulation of an oxide walled emitter STL gate p21
Rowe, G.B., Williamson, A.G., and Egan, B. Mobile radio propagation in Auckland at 465 MHz p207
Rowe, G.B., Williamson, A.G., and Egan, B. Mobile radio propagation in Auckland at 76 MHz p1064
Rowe, G.B., Williamson, A.G., and Egan, B. Variability of mobile radio path loss in Auckland at 465 MHz p588
Rühl, F., and Snyder, A.W. see Snyder, A.W.
Rücker, F., and Dintelmann, F. Effect of antenna size on OTS signal scintillations and their seasonal dependence p1032
Rühl, F., and Pask, C. see Pask, C.
Rühl, F., and Snyder, A.W. see Snyder, A.W.
Ruibys, G., and Tolutis, R. Nonreciprocal HF signal transmission by surface helicon p273
Rush, J.D., Beales, K.J., and Cooper, D.M. see Beales, K.J.
Rush, J.D., Craig, S.P., Dunn, P.L., Smith, D.G., and Beales, K.J. see Craig, S.P.
Russo, G.V., Palama, G., and Neve, A.C. Really prime classes implying only really prime classes p500
Ruszczynski, A., and Styblinski, M.A. see Styblinski, M.A.
Rutter, M.J., and Cowan, C.F.N. Open-loop transversal equaliser of optimal length p208
Rutter, M.J., and Grant, P.M. Generation of codes with good autocorrelation properties p571
Ryen, N., Eriksrud, M., and Mickelson, A.R. see Eriksrud, M.

S

Saha, A.R., Nandi, R., and Nandi, S. Integrable tunable sinusoid oscillator using DVCCS p745
Saintlaurens, R., Lainey, G., and Senn, P. see Lainey, G.
Saito, S., Patzak, E., Olesen, H., Sugimura, A., and Mukai, T. see Patzak, E.
Saito, S., Patzak, E., Sugimura, A., Mukai, T., and Olesen, H. see Patzak, E.
Saitoh, T., Mikami, O., Akiya, H., and Nakagome, H. see Mikami, O.
Saitoh, T., Mikami, O., and Nakagome, H. see Mikami, O.
Saitoh, T., Mukai, T., Mikami, O., and Kimura, T. see Mukai, T.
Saitto, A., Patel, D., Doro, G., and Trombetta, B. High-efficiency satallite antenna p307
Sakai, T., Konaka, S., Kobayashi, Y., Suzuki, M., and Kawai, Y. Gigabit logic bipolar technology : advanced super self-aligned process technology p283
Sakakibara, Y., Higuchi, H., Oomura, E., Hirano, R., Namizaki, H., Susaki, W., and Fujikawa, K. see Higuchi, H.
Sakakibara, Y., Oomura, E., Higuchi, H., Hirano, R., Namizaki, H., and Susaki, W. see Oomura, E.
Saku, T., Iwamura, H., Ishibashi, T., Otsuka, K., and Horikoshi, Y. see Iwamura, H.
Saku, T., Kobayashi, H., Iwamura, H., and Otsuka, K. see Kobayashi, H.
Sakuma, I., Ueno, M., Kawano, H., and Furuse, T. see Ueno, M.
Sakurai, S., Kawabuchi, K., and Yoshimi, M. see Kawabuchi, K.
Sakurai, T., Ito, M., Wada, O., Miura, S., and Nakai, K. see Ito, M.
Sakurai, T., Wada, O., Hamaguchi, H., Miura, S., Makiuchi, M., Yamakoshi, S., Nakai, K., and Iguchi, K. see Wada, O.
Sakurai, T., Yamakoshi, S., Sanada, T., Wada, O., and Fujii, T. see Yamakoshi, S.
Salerno, M., Martinelli, G., Orlandi, G., and Rocchini, C.A. see Martinelli, G.
Samid, I., Benedek, M., Mirsky, U., and Yust, M. High-peak-power asymmetric double-heterostructure (GaAl)As-GaAs injection laser p754
Sanada, T., Yamakoshi, S., Wada, O., Fujii, T., and Sakurai, T. see Yamakoshi, S.
Sanderson, T.K., Mapper, D., Stephen, J.H., and Farren, J. Use of a ^{252}Cf source in cosmic ray simulation studies on CMOS memories p373
Sansen, W., and Van Peteghem, P. see Van Peteghem, P.
Sansen, W.M.C., and Degrauwe, M.G. see Degrauwe, M.G.
Sansonetti, P., and Alard, F. see Alard, F.
Sarje, A.K. Canonical extremal vertices of a switching function and its dual p603
Saruwatari, M., and Yamabayashi, Y. see Yamabayashi, Y.
Sarwate, D.V. Sets of complementary sequences p711
Sasaki, H., Nakamura, K., and Shimizu, H. see Nakamura, K.
Sasaki, T., Takahashi, N.S., Fukushima, A., and Kurita, S. see Takahashi, N.S.
Sasaki, Y., Hosaka, Y., Takada, K., and Noda, J. 8 km-long polarisation-maintaining fibre with highly stable polarisation state p792
Sasaki, Y., Takada, K., and Noda, J. see Takada, K.
Saul, P.H., Hunt, P.C., and Walker, R.S. Inverted transistor gate with FET load p303
Saunier, P., Kim, B., and Frensley, W.R. GaAs integrated digital-to-analogue convertor for control of power dual-gate FETs p162
Sawa, S., and Geshiro, M. see Geshiro, M.
Sawada, T., Yamamoto, H., Arimoto, S., Hasegawa, H., and Ohno, H. see Yamamoto, H.
Sayhood, K.H., and Marougi, S.D. see Marougi, S.D.
Scavennec, A., Ankri, D., Besombes, C., Courbet, C., Riou, J., and Heiliot, F. High-gain low-noise GaAlAs-GaAs phototransistors p394
Scavennec, A., Post, G., Dimitriou, P., Duhamel, N., and Mircea, A. see Post, G.
Schach, S.R. Efficient algorithm for common spanning tree problem p346
Schaff, W.J., Ankri, D., Barnard, J., Lunardi, L., and Eastman, L.F. see Ankri, D.
Schaff, W.J., Ankri, D., Smith, P., and Eastman, L.F. see Ankri, D.
Schicketanz, D. Fitting of a weighted Gaussian lowpass filter to the transfer function of graded-index fibres to reduce bandwidth ambiguities p650
Schieblich, C., and Hinken, J.H. Ka-band Y-circulators in integrated waveguide technology p665
Schiek, B., and Spaude, M. see Spaude, M.
Schimpe, R., and Harth, W. Theory of FM noise of single-mode injection lasers p136

Schink, H.K. Measurement of screened voltages by electron-beam-induced conductivity (EBIC) p177

Schink, H.K., and Rehme, H. High-resolution mapping of pn-junctions by computer-processed EBIC-signals p383

Schlachetzki, A., and Kowalsky, W. see Kowalsky, W.

Schlafer, J., Olshansky, R., Su, C.B., and Manning, J. see Olshansky, R.

Schlak, M., Bornholdt, C., Döldissen, W., Franke, D., Grote, N., Krauser, J., Niggebrügge, U., Nolting, H.P., and Tiedke, I. see Bornholdt, C.

Schmidt auf Altenstadt, W. Optimum choice of Si FET or GaAs FET as first-stage active device for very low-noise optical receivers with medium bandwidths p937

Schmitt, H.J. Shielded dielectric resonators p243

Scholz, F., Speier, P., Benz, K.W., Renz, H., and Weidlein, J. see Speier, P.

Schouhamer Immink, K.A. Runlength-limited code with small error propagation p323

Schreter, U., Rav-Noy, Z., Harder, C., Margalit, S., and Yariv, A. see Rav-Noy, Z.

Schroeder, C.M., and Paek, U.C. see Paek, U.C.

Schüppert, B. Modified numerical method for solving the nonlinear mixer pumping problem p50

Schulz, A., and Gillespie, A.R. see Gillespie, A.R.

Schumacher, H., Roth, W., and Beneking, H. see Roth, W.

Scifres, D.R., Lindström, C., Burnham, R.D., Paoli, T.L., and Streifer, W. see Lindström, C.

Scifres, D.R., Lindström, C., Burnham, R.D., Streifer, W., and Paoli, T.L. Phase-locked (GaAl)As laser diode emitting 2.6 W CW from a single mirror p169

Scifres, D.R., Lindström, C., Burnham, R.D., Paoli, T.L., and Streifer, W. see Lindström, C.

Scovell, P.D., Hemment, P.L.F., Maydell-Ondrusz, E.A., and Stephens, K.G. see Hemment, P.L.F.

Scripachev, I.V., Vasiliev, A.V., Dianov, E.M., Plotnichenko, V.G., Sysoev, V.K., Bagrov, A.M., Baikalov, P.I., Devyatykh, G.G., and Churbanov, M.F. see Vasiliev, A.V.

Sealy, B.J., Bensalem, R., and Barrett, N.J. see Bensalem, R.

Sebak, A.A., Shafai, L., and Mohsen, A. Generation of field scattered by imperfectly conducting objects from the solution of a perfectly conducting object p25

Sedra, A.S., and Datar, R.B. see Datar, R.B.

Segalen, A., and Demoment, G. see Demoment, G.

Seguinot, C., Kennis, P., and Pribetich, P. Desktop computer appraisal of potential slow-wave propagation characteristics for Schottky coplanar lines p1065

Seki, M., Kitamura, M., Yamaguchi, M., Mito, I., Kobayashi, Ke., Kobayashi, Ko., and Matsuoka, T. see Kitamura, M.

Seki, N., Matsushima, Y., Akiba, S., Noda, Y., and Kushiro, Y. see Matsushima, Y.

Sekigawa, T., Nagai, K., and Hayashi, Y. see Nagai, K.

Selga, J.M. Optimum control of packet switching networks p794

Sengupta, D.L. Approximate expression for the resonant frequency of a rectangular patch antenna p834

Senn, P., Lainey, G., and Saintlaurens, R. see Lainey, G.

Shaar, A.A., and Davies, P.A. see Davies, P.A.

Shaar, A.A., and Davies, P.A. Prime sequences: quasi-optimal sequences for OR channel code division multiplexing p888

Shafai, L., Kishk, A.A., and Ittipiboon, A. see Kishk, A.A.

Shafai, L., Kishk, A.A., and Ittipiboon, A. Radiation characteristics of coaxial waveguides as a small primary feed p623

Shafai, L., Sebak, A.A., and Mohsen, A. see Sebak, A.A.

Shah, A.V., Curtins, H., and Max, J.J. see Curtins, H.

Shah, R.R., Malhi, S.D.S., Shichijo, H., Pinizzotto, R.F., Chen, C.E., Chatterjee, P.K., and Lam, H.W. see Malhi, S.D.S.

Shang, Hen-Tai, Stone, J., and Burrus, C.A. Low-OH MCVD fibres without a barrier layer using OH→OD-exchanged substrate tubes p95

Shankar, P., and Adiga, B.S. see Adiga, B.S.

Shaw, H.J., Newton, S.A., Howland, R.S., and Jackson, K.P. see Newton, S.A.

Shaw, H.J., Sorin, W.V., and Jackson, K.P. see Sorin, W.V.

Shibata, H., and Terakado, R. Resistance value and field distribution of rectangular anisotropic resistive region p518

Shibata, K., Yanagisawa, H., and Ishihata, Y. Three-line microstrip directional coupler with dielectric overlay p911

Shibata, N., Suzuki, K., and Ishida, Y. see Suzuki, K.

Shibuya, M., and Hatano, H. see Hatano, H.

Shichijo, H., Malhi, S.D.S., Shah, R.R., Pinizzotto, R.F., Chen, C.E., Chatterjee, P.K., and Lam, H.W. see Malhi, S.D.S.

Shih, H.D., and Bayraktaroglu, B. see Bayraktaroglu, B.

Shimizu, H., Nakamura, K., and Sasaki, H. see Nakamura, K.

Shimizu, N., Imoto, N., and Ikeda, M. Fusion splicing between optical circuits and optical fibres p96

Shimizu, S., Iga, K., Soda, H., and Terakado, T. see Iga, K.

Shin, S.-Y., Kim, S.-Y., and Ra, J.-W. see Kim, S.-Y.

Shinoda, Y., Ohmachi, Y., and Nishioka, T. see Ohmachi, Y.

Shirafuji, J., Koyama, J., and Inuishi, Y. see Koyama, J.

Shirai, T., Mikawa, T., Kaneda, T., and Miyauchi, A. InGaAs avalanche photodiodes for 1 μm wavelength region p534

Shirai, T., Yasuda, K., Mikawa, T., Kishi, Y., and Kaneda, T. see Yasuda, K.

Shore, K.A. Mode-guiding in bistable twin-stripe lasers p874

Shorthouse, G.P., Das, K., and Butcher, J.B. see Das, K.

Shur, M.S., Fischer, R., Drummond, T.J., Kopp, W., Morkocced, H., and Lee, K. see Fischer, R.

Shuto, Y., Yamamoto, F., Nakagawa, K., and Yamakawa, S. see Yamamoto, F.

Sicuranza, G.L. Fast realisation of 2-D digital filters using logarithmic number systems p449

Sigel Jun., G.H., Tran, D.C., Levin, K.H., Fisher, C.F., and Burk, M.J. see Tran, D.C.

Simmons, T.J., and Smith, D.C. see Smith, D.C.

Simons, J.A.E. Systolic convolution array p874

Simpson, J.R., and MacChesney, J.B. Optical fibres with an Al_2O_3-doped silicate core composition p261

Simpson, P., and Roberts, J.B.G. Speech recognition on a distributed array processor p1018

Singh, S.P., Prabhakar, A., and Bhattacharyya, A.B. Modified C-2C ladder voltage divider for application in PCM A/D convertors p788

Sisson, M.J., Kelly, M.J., Todd, A.G., and Wickenden, D.K. see Kelly, M.J.

Sitch, J.E., and Goswami, P.K. see Goswami, P.K.

Sivaprakasapillai, P., Nikoonahad, M., and Ash, E.A. see Nikoonahad, M.

Skotnicki, T. Quasi-two-dimensional analytical solution of Poisson equation in arbitrarily doped short-channel MOSFET p797

Slack, G.J., Griffin, E.J., and Hill, L.D. see Griffin, E.J.

Small, M.B., and Stubkjaer, K. see Stubkjaer, K.

Smith, C.E. Accuracy of design data for microstrip of unequal widths in an inhomogeneous medium p575

Smith, D.C., and Simmons, T.J. Fully integrated W-band microstrip oscillator p222

Smith, D.G., Craig, S.P., Dunn, P.L., Rush, J.D., and Beales, K.J. see Craig, S.P.

Smith, D.W., Malyon, D.J., Hodgkinson, T.G., and Booth, R.C. see Malyon, D.J.

Smith, D.W., Wyatt, R., and Hodgkinson, T.G. see Wyatt, R.

Smith, M.S. Frequency scanned circular antenna array p898

Smith, M.S., and Tan, T.G. Sidelobe reduction using random methods for antenna arrays p931

Smith, P., Ankri, D., Schaff, W.J., and Eastman, L.F. see Ankri, D.

Smith, P.M., Chao, P.C., Yu, T., Wanuga, S., Hwang, J.C.M., Perkins, W.H., Lee, H., Eastman, L.F., and Wolf, E.D. see Chao, P.C.

Smith, S.G., Petrie, N., and Mavor, J. see Petrie, N.

Snowden, C.M., and Potter, C.M. see Potter, C.M.

Snyder, A.W., and Rühl, F. Practical single-polarisation anisotropic fibres p687

Snyder, A.W., and Rühl, F. New single-mode single-polarisation optical fibre p185

Snyder, A.W., and Rühl, F. Novel polarisation phenomena on anisotropic multimoded fibres p401

Soda, H., Iga, K., Terakado, T., and Shimizu, S. see Iga, K.

Solbach, K., and Adelseck, B. Dielectric image line leaky wave antenna for broadside radiation p640

Somlo, P.I. The case for using a matched load standard for six-port calibration p979

Sorin, W.V., Jackson, K.P., and Shaw, H.J. Evanescent amplification in a single-mode optical fibre p820

Spalink, J.D., Bates, R.J.S., Butterfield, S.J., Lipson, J., Burrus, C.A., Lee, T.P., and Logan, R.A. see Bates, R.J.S.

Spaude, M., and Schiek, B. Reduction of preamplifier noise induced measurement errors in radiometers p563

Speier, P., Scholz, F., Benz, K.W., Renz, H., and Weidlein, J. $In_xGa_{1-x}As$-epitaxy with metalorganic adducts p728

Spetz, A., Lundström, I., and Nylander, C. see Lundström, I.

Sphicopoulos, T., Teodoridis, V., and Gardiol, F. Tractable form of the dyadic Green function for application to multilayered isotropic media p1055

Spooner, F., Heaton, J.L., Fabian, W., and Kraemer, E.H. see Heaton, J.L.

Spotz, M.S., Bhagavatula, V.A., Love, W.F., and Keck, D.B. see Bhagavatula, V.A.

Spronck, F., Taoud, M.A., and De Buck, F. see Taoud, M.A.

Srivastava, R., Ghatak, A.K., Faria, I.F., Thyagarajan, K., and Tiwari, R. see Ghatak, A.K.

Stagi, M., and Diligenti, A. see Diligenti, A.

Stanier, B.J., and Ward, J.S. see Ward, J.S.

Stannard-Powell, S.J., and Fox, M. see Fox, M.

Steele, R.C. Optical phase-locked loop using semiconductor laser diodes p69

Stephen, J.H., Sanderson, T.K., Mapper, D., and Farren, J. see Sanderson, T.K.

Stephens, K.G., Hemment, P.L.F., Maydell-Ondrusz, E.A., and Scovell, P.D. see Hemment, P.L.F.

Stewart, C., and Goodwin, M. see Goodwin, M.

Stockmann, P.H., Leviatan, Y., Adams, A.T., and Meidaner, D.R. see Leviatan, Y.

Stolen, R.H., Pleibel, W., and Rashleigh, S.C. see Pleibel, W.

Stolte, C., and Su, C.-Y. see Su, C.-Y.

Stone, J., Shang, Hen-Tai, and Burrus, C.A. see Shang, Hen-Tai

Stone, J., Wiesenfeld, J.M., Chraplyvy, A.R., and Burrus, C.A. see Wiesenfeld, J.M.

Stone, J., and Chraplyvy, A.R. Spontaneous Brillouin noise in long-distance high-bandwidth optical-fibre transmission p275

Strebel, B., Bachus, E.-J., and Braun, R.-P. see Bachus, E.-J.

Strebel, B., Bachus, E.J., Böhnke, F., and Eutin, W. see Bachus, E.J.

Streifer, W., Lindström, C., Burnham, R.D., Scifres, D.R., and Paoli, T.L. see Lindström, C.

Streifer, W., Lindström, C., Burnham, R.D., Paoli, T.L., and Scifres, D.R. see Lindström, C.

Streifer, W., Scifres, D.R., Lindström, C., Burnham, R.D., and Paoli, T.L. see Scifres, D.R.

Streifer, W., and Yevick, D. see Yevick, D.

Strube, J., and Arndt, F. Three-dimensional higher-order mode analysis of transition from waveguide to shielded dielectric image line p306

Stubkjaer, K., and Small, M.B. Feedback-induced noise in index-guided semiconductor lasers and its reduction by modulation p388

Stulz, L.W., Kaminow, I.P., Ko, J.-S., Miller, B.I., Feldman, R.D., DeWinter, J.C., and Pollack, M.A. see Kaminow, I.P.

Stulz, L.W., Kaminow, I.P., Ko, J.-S., and Linke, R.A. see Kaminow, I.P.

Styblinski, M.A., and Ruszczynski, A. Stochastic approximation approach to statistical circuit design p300

Su, C.-Y., and Stolte, C. Low contact resistance nonalloyed ohmic contacts to Zn-implanted p^+ GaAs p891

Su, C.B., Olshansky, R., Manning, J., and Schlafer, J. see Olshansky, R.

Su, S.L., Lyons, W.G., Tejayadi, O., Fischer, R., Kopp, W., Morkoc, H., Mclevige, W., and Yuan, H.T. Molecular beam expitaxial double heterojunction bipolar transistors with high current gains p128

Sudhakar, P., Agrawal, J.P., and Bhattacharyya, A.B. see Agrawal, J.P.

Sudo, H., Nakano, Y., Fukuda, M., Fujita, O., and Iwane, G. see Nakano, Y.

Suematsu, Y., Koyama, F., Tanbun-Ek, T., Arai, S., Wang, S., and Furuya, K. see Koyama, F.

Suematsu, Y., Sugou, S., Kameyama, A., Katsuda, H., Miyamoto, Y., and Furuya, K. see Sugou, S.

Suematsu, Y., Tohmori, Y., Tsushima, H., and Arai, S. see Tohmori, Y.

Suemune, I., Kan, Y., and Yamanishi, M. Semiconductor light sources with capabilities of electronic beam-scanning p1002

Sugimoto, M., Aoki, Y., Kishida, S., Honmou, H., and Washio, K. see Aoki, Y.

Sugimoto, M., Kasahara, K., Nomura, H., and Suzuki, S. see Kasahara, K.

Sugimoto, S., and Kozaki, S. New approach to calculation of electromagnetic scattering by a perfectly conducting rectangular cylinder p861

Sugimura, A., Patzak, E., Olesen, H., Saito, S., and Mukai, T. see Patzak, E.

Sugimura, A., Patzak, E., Saito, S., Mukai, T., and Olesen, H. see Patzak, E.

Sugou, S., Kameyama, A., Katsuda, H., Miyamoto, Y., Furuya, K., and Suematsu, Y. Alloy composition and flow rates in $Ga_xIn_{1-x}As_yP_{1-y}$ lattice-matched to InP grown by MO-CVD p1036

Sundaram, V.S., Roth, A.P., and Yakimova, R. see Roth, A.P.

Sundberg, C.-E., Svensson, A., and Aulin, T. see Svensson, A.

Sundblad, R. Method to sequentially address a large memory, suitable for LSI implementation p499

Susa, N., Ando, H., and Yamauchi, Y. see Ando, H.

Susaki, W., Higuchi, H., Oomura, E., Hirano, R., Sakakibara, Y., Namizaki, H., and Fujikawa, K. see Higuchi, H.

Susaki, W., Oomura, E., Higuchi, H., Hirano, R., Sakakibara, Y., and Namizaki, H. see Oomura, E.

Suzuki, A., Nomura, H., and Minemura, K. 500 Mbit/s transmission experiment using 1·3 μm wavelength InGaAsP/InP high-speed surface-emitting DH LEDs p963

Suzuki, K., Kawai, M., and Egami, S. see Kawai, M.

Suzuki, K., Shibata, N., and Ishida, Y. Polarisation-mode dispersion as a bandwidth-limiting factor in a long-haul single-mode optical-transmission system p689

Suzuki, M., Koshiba, M., and Karakida, S. see Koshiba, M.

Suzuki, M., Sakai, T., Konaka, S., Kobayashi, Y., and Kawai, Y. see Sakai, T.

Suzuki, M., and Miyata, K. see Miyata, K.

Suzuki, S., Kasahara, K., Sugimoto, M., and

Nomura, H. see Kasahara, K.
Suzuki, S., Kokubun, Y., Fuse, T., Uehara, H., Iga, K., Oikawa, M., and Misawa, S. see Kokubun, Y.
Svensson, A., Sundberg, C.-E., and Aulin, T. Distance measure for simplified receivers p953
Swamy, M.N.S., Ananda Mohan, P.V., and Ramachandran, V. see Ananda Mohan, P.V.
Sysoev, V.K., Vasiliev, A.V., Dianov, E.M., Plotnichenko, V.G., Bagrov, A.M., Baikalov, P.I., Devyatykh, G.G., Scripachev, I.V., and Churbanov, M.F. see Vasiliev, A.V.
Szigethy, D., Mojzes, I., and Veresegyhazy, R. see Mojzes, I.
Szühbator, B. Power spectrum of sampled signals distorted by jitter p773
Szynowski, J. CMRR analysis of instrumentation amplifiers p547

T

Tabuchi, T., Hikita, M., Kojima, H., and Kinoshita, Y. see Hikita, M.
Tahim, R.S., Hayashibara, G.M., and Chang, K. High-efficiency Q-to-W-band MIC frequency doubler p219
Takada, K., Noda, J., and Sasaki, Y. Simple measurement method for polarisation modal dispersion in polarisation-maintaining fibres p1015
Takada, K., Sasaki, Y., Hosaka, Y., and Noda, J. see Sasaki, Y.
Takada, T., and Ohta, N. see Ohta, N.
Takahashi, N.S., Sasaki, T., Fukushima, A., and Kurita, S. LPE growth of InP/InGaAs/InP DH wafers on (100) InP substrates p402
Takahashi, S., Ohishi, Y., Mitachi, S., and Miyashita, T. see Ohishi, Y.
Takahei, K., Ikegami, T., Fukuda, M., and Kuroiwa, K. see Ikegami, T.
Takawira, F., and Ingram, D.G.W. see Ingram, D.G.W.
Takeda, Y., and Kuribara, M. see Kuribara, M.
Takenaka, T., and Fukumitsu, O. Accurate analysis of the abrupt discontinuity in a dielectric waveguide p806
Takikawa, M., Komeno, J., and Ozeki, M. see Komeno, J.
Tan, E.C. Numerical algorithm for pole-sensitivity study of LC ladder networks p7
Tan, E.C. System matrices of wave-digital filter related by similarity transformations p333
Tan, T.G., and Smith, M.S. see Smith, M.S.
Tanaka, C., Uesugi, N., Murakami, Y., Ishida, Y., Mitsunaga, Y., Negishi, Y., and Uchida, N. see Uesugi, N.
Tanbun-Ek, T., Koyama, F., Arai, S., Wang, S., Suematsu, Y., and Furuya, K. see Koyama, F.
Tanji, H., and Kawakami, S. see Kawakami, S.
Taoud, M.A., Spronck, F., and De Buck, F. Inductive and capacitive VAR compensation with forced commutated high-frequency cycloconvertors p203
Tarbox, E.J., Ourmazd, A., Birch, R.D., Varnham, M.P., and Payne, D.N. see Ourmazd, A.
Tarbox, E.J., Varnham, M.P., Payne, D.N., and Birch, R.D. see Varnham, M.P.
Taub, D.M. Hardware method of synchronising processes without using a clock p772
Taub, D.M. Limitations of looped-line scheme for overcoming wired-OR glitch effects p579
Taub, D.M. Overcoming the effects of spurious pulses on wired-OR lines in computer bus systems p340
Taylor, H.F., Goldberg, L., Rauscher, C., and Weller, J.F. see Goldberg, L.
Taylor, H.F., Goldberg, L., Weller, J.F., and Bloom, D.M. see Goldberg, L.
Taylor, H.F., Nosu, K., Rashleigh, S.C., and Weller, J.F. see Nosu, K.
Taylor, J. Stability test for switched-capacitor filters p89
Tayrani, R., and Glew, R.W. Ultrafast GaAs microwave PIN diode p479
Tazo, Y., Hohkawa, K., Nagata, K., and Ishida, A. see Hohkawa, K.
Tejayadi, O., Su, S.L., Lyons, W.G., Fischer, R., Kopp, W., Morkoc, H., Mclevige, W., and Yuan, H.T. see Su, S.L.
Temes, G.C., Orchard, H.J., and Cataltepe, T. see Orchard, H.J.
Temes, G.C., and Watanabe, K. see Watanabe, K.
Temkin, H., van der Ziel, J.P., and Logan, R.A. see van der Ziel, J.P.
Tenen, O. Simplified calibration equations for computer-corrected network analyser using matched-impedance normalisation p314
Teodoridis, V., Sphicopoulos, T., and Gardiol, F. see Sphicopoulos, T.
Terakado, R., and Shibata, H. see Shibata, H.
Terakado, T., Iga, K., Soda, H., and Shimizu, S. see Iga, K.
Tewksbury, S.K., Herbst, D., Bösch, M.A., Lemons, R.A., and Harrison, T.R. see Herbst, D.
Therapos, C.P. Balanced minimal realisation of SISO systems p424
Therapos, C.P. Stability equation method to reduce the order of fast oscillating systems p183
Thiel, D.V., and Wu, Wu Xiao Modification of phase-locked-loop performance using a sample-and-hold circuit p681
Thiel, F.A., and Kuo, J.M. see Kuo, J.M.
Thompson, G.H.B. Analysis of radiative and non-radiative recombination law in lightly doped InGaAsP lasers p154
Thorne, R.E., Fischer, R., Arnold, D., Drummond, T.J., and Morkoc, H. see Fischer, R.
Thorpe, W., and Gilliland, J.D. 29 GHz E-plane biphase modulator p107
Thyagarajan, K., Ghatak, A.K., Srivastava, R., Faria, I.F., and Tiwari, R. see Ghatak, A.K.
Tiedke, I., Bornholdt, C., Döldissen, W., Franke, D., Grote, N., Krauser, J., Niggebrügge, U., Nolting, H.P., and Schlak, M. see Bornholdt, C.
Tischer, F.J., Benson, F.A., and Cudd, P.A. see Benson, F.A.
Tiuri, M., Räisänen, A., Lehto, A., and Lamb, J. see Räisänen, A.
Tiwari, R., Ghatak, A.K., Srivastava, R., Faria, I.F., and Thyagarajan, K. see Ghatak, A.K.
Tjhung, T.T., Lim, T.K., and Mendis, F.V.C. Analogue optical link for multichannel frequency-modulated television transmission p106
Todd, A.G., Kelly, M.J., Sisson, M.J., and Wickenden, D.K. see Kelly, M.J.
Tohmori, Y., Suematsu, Y., Tsushima, H., and Arai, S. Wavelength tuning of GaInAsP/InP integrated laser with butt-jointed built-in distributed Bragg reflector p656
Toki, M., and Tsuzuki, Y. Measuring method of equivalent series capacitance and negative resistance of crystal-oscillator circuits p959
Tokiwa, H., Mochizuki, K., and Wakabayashi, H. Joint characteristics between polarisation-maintaining single-mode fibres p485
Tolutis, R., and Ruibys, G. see Ruibys, G.
Tomita, A., Duff, D.G., and Cheung, N.K. Mode partition noise caused by wavelength-dependent attenuation in lightwave systems p1079
Tomita, A., and Lin, C. see Lin, C.
Tomizawa, K., Awano, Y., Hashizume, N., and Kawashima, M. see Awano, Y.
Tomizawa, K., Awano, Y., Hashizume, N., and Kawashima, M. Simulation of GaAs submicron FET with hot-electron injection structure p697
Toutain, S., Pribetich, P., and Kennis, P. see Pribetich, P.
Tran, D.C., Levin, K.H., Fisher, C.F., Burk, M.J., and Sigel, Jun., G.H. Rayleigh scattering in fluoride glass optical fibres p165
Tripathi, V.K., and Bhattacharya, P.K. see Bhattacharya, P.K.
Trombetta, B., Saitto, A., Patel, D., and Doro, G. see Saitto, A.
Tromborg, B., Bossdtker, E., Mark, J., and Nielsen, C.J. see Bossdtker, E.
Tromborg, B., Osmundsen, J.H., and Olesen, H. see Osmundsen, J.H.
Trommel, E.S., de Jongh, A.G.W.M., Diemeer, M.B.J., and Bruels, A.H.E. see de Jongh, A.G.W.M.
Truong, T.K., and Reed, I.S. see Reed, I.S.
Tsang, W.T., Olsson, N.A., Linke, R.A., and Logan, R.A. 1.5 μm wavelength GaInAsP C^3 lasers: single-frequency operation and wideband frequency tuning p415
Tsang, W.T., Olsson, N.A., Logan, R.A., and Linke, R.A. Demonstration of multilevel mutichannel optical frequency shift keying (FSK) with cleaved-coupled-cavity (C^3) semiconductor lasers p341
Tsang, W.T., Olsson, N.A., and Logan, R.A. Stable single-longitudinal-mode operation under high-speed direction modulation in cleaved-coupled-cavity GaInAsP semiconductor lasers p488
Tsang, W.T., and Olsson, N.A. see Olsson, N.A.
Tseng, W.F., and Christou, A. Stable tantalum silicide Schottky barrier on n-type gallium arsenide evaluated at elevated temperatures p330
Tsironis, C., and Hennings, D. Highly-stable FET DROs using new linear dielectric resonator material p741
Tsubaki, K., Livingstone, A., Kawashima, M., Okamoto, H., and Kumabe, K. see Livingstone, A.
Tsushima, H., Tohmori, Y., Suematsu, Y., and Arai, S. see Tohmori, Y.
Tsuzuki, Y., and Toki, M. see Toki, M.
Tuck, B., and Chaoui, R. Electrical measurements on silver-diffused InP p565
Tucker, R.C.F. Accurate method for analysis of a packet speech multiplexer p536
Tucker, R.S., Eisenstein, G., and Kaminow, I.P. 10 Ghz active mode-locking of a 1.3 μm ridge-waveguide laser in an optical-fibre cavity p552
Tucker, R.S., and Ashoka, H. see Ashoka, H.
Turchetti, C. Relationships for the drift and diffusion components of the drain current in an MOS transistor p960
Turner, L.E., and Liu, E.S.K. see Liu, E.S.K.
Tzavaras, I.V. Predicting the performance of queuing networks with dynamic job routing p899

U

Uchida, N., Uesugi, N., Kuwabara, T., Ohashi, M., and Ishida, Y. see Uesugi, N.
Uchida, N., Uesugi, N., Murakami, Y., Tanaka, C., Ishida, Y., Mitsunaga, Y., and Negishi, Y. see Uesugi, N.
Udink ten Cate, A.J. Minimised error criterion in recursive least-squares parameter estimation p1097
Ueda, K., and Kitazawa, H. Algorithm for VLSI chip floor plan p77
Uehara, H., Kokubun, Y., Suzuki, S., Fuse, T., Iga, K., Oikawa, M., and Misawa, S. see Kokubun, Y.
Uematsu, Y., Kinoshita, J., and Okuda, H. see Kinoshita, J.
Uematsu, Y., Okuda, H., Hirayama, Y., Kinoshita, J., and Furuyama, H. see Okuda, H.
Uematsu, Y., Okuda, H., Kinoshita, J., and Hirayama, Y. see Okuda, H.
Ueno, F., and Inoue, T. see Inoue, T.
Ueno, M., Kawano, H., Furuse, T., and Sakuma, I. 0.81 μm band AlGaAs/GaAs double-channel planar buried-heterostructure laser with large optical cavity p370
Uesugi, N., Kuwabara, T., Ohashi, M., Ishida, Y., and Uchida, N. Stress and temperature effects on optical loss increase for phosphor-doped silica fibre in the long wavelength region p842
Uesugi, N., Murakami, Y., Tanaka, C., Ishida, Y., Mitsunaga, Y., Negishi, Y., and Uchida, N. Infrared optical loss increase for silica fibre in cable filled with water p762
Unbehauen, R., and Prasad, K.P. see Prasad, K.P.
Unrau, U., Agarwal, A.K., and Evers, G. see Agarwal, A.K.
Unrau, U., and Agarwal, A.K. see Agarwal, A.K.
Urien, P., and Delagebeaudeuf, D. New method for determining the series resistances in a MESFET or TEGFET p702
Urisu, T., Yamada, S., and Mizushima, Y. see Yamada, S.
Uttam, D., Giles, I.P., Culshaw, B., and Davies, D.E.N. see Giles, I.P.

V

Valette, S., Lizet, J., Mottier, P., Jadot, J.P., Renard, S., Fournier, A., Grouillet, A.M., Gidon, P., and Denis, H. Integrated optical spectrum analyser using planar technology on oxidised silicon substrate p883
Valette, S., Lizet, J., and Langeac, D. see Lizet, J.
van der Ziel, J.P., Temkin, H., and Logan, R.A. Quaternary 1.5 μm (InGaAsP/InP) buried crescent lasers with seperate optical confinement p113
VanPeteghem, P., and Sansen, W. T-cell SC integrator synthesises very large capacitance ratios p541
Vandewalle, J., Desmedt, Y., and Govaerts, R. see Desmedt, Y.
Vardaxoglou, J.C., and Parker, E.A. Performance of two tripole arrays as frequency-selective surfaces p709
Varnham, M.P., Barlow, A.J., Payne, D.N., and Okamoto, K. Polarimetric strain gauges using high birefringence fibre p699
Varnham, M.P., Birch, R.D., Payne, D.N., and Okamoto, K. see Birch, R.D.
Varnham, M.P., Ourmazd, A., Birch, R.D., Payne, D.N., and Tarbox, E.J. see Ourmazd, A.
Varnham, M.P., Payne, D.N., Birch, R.D., and Tarbox, E.J. Bend behaviour of polarising optical fibres p679
Varnham, M.P., Payne, D.N., Birch, R.D., and Tarbox, E.J. Single-polarisation operation of highly birefringent bow-tie optical fibres p246
Vasiliev, A.V., Dianov, E.M., Plotnichenko, V.G., Sysoev, V.K., Bagrov, A.M., Baikalov, P.I., Devyatykh, G.G., Scripachev, I.V., and Churbanov, M.F. Middle IR As-S and As-Se glass fibres with optical losses lower than 1 dB/m p589
Vatoux, S., and Papuchon, M. see Papuchon, M.
Veith, G., Göbel, E.O., and Kuhl, J. Optoelectronic 10 Gbit/s code generation by a picosecond photoconductive device p1072
Veith, G., Kuhl, J., and Göbel, E.O. Temporal and spectral characteristics of rapidly gain-switched GaAs/GaAlAs buried-heterostructure lasers p385
Venkatesan, R., and Narraway, J.J. Digital-filter functions with fast coefficient implementation: an addendum p84
Veresegyhazy, R., Mojzes, I., and Szigethy, D. see Mojzes, I.
Versfeld, L.R.G. Semi-lossy two-port and a theorem concerning RLCn networks p157
Veselka, J.J., Jackel, J.L., and Rice, C.E. see Jackel, J.L.
Vetelino, J.F., Goodberlet, M., and Lee, D.L. see Goodberlet, M.
Vezzoni, E., Costa, B., and Puleo, M. see Costa, B.
Vilar, E., Puigcerver, M., Alonso, S., and Lorente, J. see Puigcerver, M.
Villarruel, C.A., Abebe, M., and Burns, W.K. Polarisation preserving single-mode-fibre coupler p17
Viola, G., and Macchiarella, G. see Macchiarella, G.
Vissers, J.M.M., Herben, M.H.A.J., and Maanders, E.J. Crosspolarisation properties of reflector antennas with random surface errors p49
Vizard, D.R., and Ellison, B.N. see Ellison, B.N.
Vodhanel, R.S., Linke, R.A., Kasper, B.L., Ko, J.S., and Kaminow, I.P. see Linke, R.A.
Vu, D.P., Bensahel, D., Haond, M., and Colinge, J.P. see Bensahel, D.

Vu, D.P., Haond, M., D'Ouville, T.Ternisien, Perio, A., and Mingam, H. Fast processing of 4 in silicon wafers using two 150 W halogen lamps p4

W

Wada, O., Hamaguchi, H., Miura, S., Makiuchi, M., Yamakoshi, S., Sakurai, T., Nakai, K., and Iguchi, K. Monolithic PIN/preamplifier circuit integrated on a GaAs substrate p1031
Wada, O., Ito, M., Miura, S., Nakai, K., and Sakurai, T. see Ito, M.
Wada, O., Yamakoshi, S., Sanada, T., Fujii, T., and Sakurai, T. see Yamakoshi, S.
Wakabayashi, H., Tokiwa, H., and Mochizuki, K. see Tokiwa, H.
Wakamoto, M., and Ishii, R. see Ishii, R.
Wakita, K., Ikeda, M., Hata, S., Kondo, S., and Kanbe, H. see Ikeda, M.
Walker, R.G., and Goodfellow, R.C. Attenuation measurements on MOCVD-grown GaAs/GaAlAs optical waveguides p590
Walker, R.S., Saul, P.H., and Hunt, P.C. see Saul, P.H.
Walker, S.D., Carpenter, R.B.P., and Cochrane, P. Jitter accumulation with SAW timing extraction at 325 Mbaud p193
Walton, A.J., Henderson, B.M.M., and Gundlach, A.M. see Henderson, B.M.M.
Wang, Da-Kai Mixed measure error function for nonlinear mapping algorithms p634
Wang, S., Koyama, F., Tanbun-Ek, T., Arai, S., Suematsu, Y., and Furuya, K. see Koyama, F.
Wang, S., and Antreasyan, A. see Antreasyan, A.
Wang, S., and Choi, H.K. see Choi, H.K.
Wang, S., and Fattah, H.A. see Fattah, H.A.
Wang, S.Y., and Bloom, D.M. 100 GHz bandwidth planar GaAs Schottky photodiodes p554
Wang, Shen-You, and Zouh, Shou-Lion New flow-graph mode and calibration procedure for S-parameter measurements of devices mounted in microstrip fixture p171
Wang, W.I., and Lee, C.P. see Lee, C.P.
Wanuga, S., Chao, P.C., Yu, T., Smith, P.M., Hwang, J.C.M., Perkins, W.H., Lee, H., Eastman, L.F., and Wolf, E.D. see Chao, P.C.
Ward, J.S., and Stanier, B.J. Fast discrete cosine transform algorithm for systolic arrays p58
Washio, K., Aoki, Y., Kishida, S., Honmou, H., and Sugimoto, M. see Aoki, Y.
Watanabe, H., Katoh, K., Yasui, M., and Kuniyasu, S. see Katoh, K.
Watanabe, K., Enomoto, T., Ishihara, T., and Yasumoto, M. see Enomoto, T.
Watanabe, K., and Temes, G.C. Switched-capacitor digital multiplier p33
Weglein, R.D. Nondestructive SAW material attenuation via acoustic microscopy p1023
Weglein, R.D. Nondestructive film thickness measurement on industrial diamond e74
Wei, Ce-Jun Novel design of travelling-wave FET p461
Weidel, E., Böhm, K., Marten, P., and Petermann, K. see Böhm, K.
Weidlein, J., Speier, P., Scholz, F., Benz, K.W., and Renz, H. see Speier, P.
Weinrichter, H., and Lutz, P. see Lutz, P.
Weller, J.F., Goldberg, L., Rauscher, C., and Taylor, H.F. see Goldberg, L.
Weller, J.F., Goldberg, L., Taylor, H.F., and Bloom, D.M. see Goldberg, L.
Weller, J.F., Nosu, K., Rashleigh, S.C., and Taylor, H.F. see Nosu, K.
Weller, J.F., and Carruthers, T.F. see Carruthers, T.F.
Wenger, J. 140 GHz 70 mW CW output power with n-type silicon single drift IMPATT diodes p908
West, C.L., and Lewis, M.F. see Lewis, M.F.
West, R.H., and Lenham, A.P. Radiation-hardened pure silica-core fibre optics p622
Westbrook, L.D., Nelson, A.W., and Dix, C. New approach to the manufacture of low-threshold 1.5 μm distributed feedback lasers p423
Westbrook, L.D., Nelson, A.W., and Evans, J.S. see Nelson, A.W.
Westbrook, L.D., Nelson, A.W., and Fiddyment, P.J. New diffraction grating profiles in InP for DFB lasers and integrated optics p1076
White, I.H., Carroll, J.E., and Plumb, R.G. Room-temperature optically triggered bistability in twin-stripe lasers p558
White, I.H., and Carroll, J.E. New mechanism for bistable operation of closely coupled twin stripe lasers p337
Wickenden, D.K., Kelly, M.J., Todd, A.G., and Sisson, M.J. see Kelly, M.J.
Wickramasinghe, H.K., and Faridian, F. see Faridian, F.
Wicks, G., Hsieh, K.H., Ohno, H., and Eastman, L.F. see Hsieh, K.H.
Widmer, A.X., and Franaszek, P.A. Transmission code for high-speed fibre-optic data networks p202
Wiegmann, W., Hayes, J.R., Capasso, F., Gossard, A.C., and Malik, R.J. see Hayes, J.R.
Wiesenfeld, J.M., Chraplyvy, A.R., Stone, J., and Burrus, C.A. Measurement of very-high-speed photodetectors with picosecond InGaAsP film lasers p22
Willey, T., Durrani, T.S., and Chapman, R. see Durrani, T.S.
Williamson, A.G., Rowe, G.B., and Egan, B. see Rowe, G.B.
Wilson, E.G. Principles of a three-dimensional molecular electronic memory p237
Wilson, I.H., Milosavljevic, M., and Jeyens, C. see Milosavljevic, M.
Wilson, M.G.F., and Chan Wong, S.W. Theory of integrated-optic diffraction gratings in low Δ waveguides p943
Withington, S. Cryogenic performance of microstrip substrates p887
Witte, H.-H., and Moustakas, S. Simple clock extraction circuit using a self sustained monostable multivibrator output signal p897
Witte, H.H., and Moustakas, S. see Moustakas, S.
Wittmann, M., and Heitmann, W. see Heitmann, W.
Wolf, E.D., Chao, P.C., Yu, T., Smith, P.M., Wanuga, S., Hwang, J.C.M., Perkins, W.H., Lee, H., and Eastman, L.F. see Chao, P.C.
Woodcock, J.M., and Harris, J.J. Bulk unipolar diodes in MBE GaAs p181
Woodcock, J.M., and Harris, J.J. Control of the height of Schottky barriers on MBE GaAs p93
Woods, D. Relevance of complex nomalisation in precision reflectometry p596
Woods, R.C., Monks, T., and Paige, E.G.S. see Monks, T.
Woodward, C.E., Becker, R.A., and Leonberger, F.J. see Becker, R.A.
Worley, J.M. High-resolution digital sinewave generation p123
Wright, D.T., Ely, S.R., and Goodyear, C.C. see Ely, S.R.
Wright, J.V. Microbending loss in monomode fibres: solution of Petermann's auxiliary function p1067
Wright, J.V. Optimum wavelength for long-wavelength LED systems p211
Wright, S.M., and Lo, Y.T. Efficient analysis for infinite microstrip dipole arrays p1043
Wu, D., and Chapman, J.E. see Chapman, J.E.
Wu, WuXiao, and Thiel, D.V. see Thiel, D.V.
Wyatt, R., Hodgkinson, T.G., and Smith, D.W. 1.52 μm PSK heterodyne experiment featuring an external cavity diode laser local oscillator p550
Wyatt, R., and Devlin, W.J. 10 kHz linewidth 1.5 μm InGaAsP external cavity laser with 55 nm tuning range p110

X

Xydeas, C.S., and Yeoh, F.S. see Yeoh, F.S.

Y

Yabuta, T., Yoshizawa, N., and Noguchi, K. see Yoshizawa, N.
Yakimova, R., Roth, A.P., and Sundaram, V.S. see Roth, A.P.
Yamabayashi, Y., and Saruwatari, M. New measurement method for polarisation dispersion in single-mode fibres employing frequency-modulated optical signal p239
Yamada, S., Urisu, T., and Mizushima, Y. High speed infra-red modulator with multilayered pn-junctions p940
Yamagata, S. Aging characteristic of light-modulation quartz-crystal oscillator with glass-bar-mounted plano-convex AT-cut quartz-crystal plate p795
Yamaguchi, M., Kitamura, M., Seki, M., Mito, I., Kobayashi, Ke., Kobayashi, Ko., and Matsuoka, T. see Kitamura, M.
Yamaguchi, M., Murata, S., Kitamura, M., Mito, I., and Kobayashi, K. see Murata, S.
Yamaguchi, M., Yanase, T., Kato, Y., Mito, I., Nishi, K., Kobayashi, K., and Lang, R. see Yanase, T.
Yamakawa, S., Yamamoto, F., Nakagawa, K., and Shuto, Y. see Yamamoto, F.
Yamakoshi, S., Sanada, T., Wada, O., Fujii, T., and Sakurai, T. AlGaAs/GaAs multiquantum-well (MQW) laser applied to a monolithic integration with FET driver p1020
Yamakoshi, S., Wada, O., Hamaguchi, H., Miura, S., Makiuchi, M., Sakurai, T., Nakai, K., and Iguchi, K. see Wada, O.
Yamamoto, F., Nakagawa, K., Shuto, Y., and Yamakawa, S. Optical fibre jacketed with high-modulus low-linear-expansion-coefficient polymer p674
Yamamoto, H., Arimoto, S., Hasegawa, H., Ohno, H., and Nanjo, J. Anodic oxidation of a-Si:H films p6
Yamamoto, H., Arimoto, S., Ohno, H., and Hasegawa, H. see Arimoto, S.
Yamamoto, H., Mochizuki, K., and Namihira, Y. see Mochizuki, K.
Yamamoto, H., Namihira, Y., and Niiro, Y. Optical-fibre unit for optical submarine cable p125
Yamamoto, H., Sawada, T., Arimoto, S., Hasegawa, H., and Ohno, H. Anodic oxide gate a-Si:H MOSFET p607
Yamamura, K., and Inoue, T. see Inoue, T.
Yamanishi, M., Suemune, I., and Kan, Y. see Suemune, I.
Yamanouchi, K., Gautam, J.K., and Meguro, T. see Gautam, J.K.
Yamanouchi, K., Gautam, J.K., and Meguro, T. New phase-shifting technique for group-type unidirectional transducers used in surface-acoustic-wave filters p168
Yamauchi, J., Nakano, H., and Hashimoto, S. see Nakano, H.
Yamauchi, Y., Ando, H., and Susa, N. see Ando, H.
Yan, Gong-Tao Modified canonic ladder realisation of IIR digital filters p62
Yanagisawa, H., Shibata, K., and Ishihata, Y. see Shibata, K.
Yanase, T., Kato, Y., Mito, I., Yamaguchi, M., Nishi, K., Kobayashi, K., and Lang, R. 1.3 μm InGaAsP/InP multiquantum-well lasers grown by vapour-phase epitaxy p700
Yang, Sau-Man, and Luus, Rein Optimisation in linear system reduction p635
Yao, S.K., Asawa, C.K., and Lipscomb, G.F. Stabilisation of single and multimode fibre-optical mocribend sensors p257
Yariv, A., Katz, J., Kapon, E., Lindsey, C., and Margalit, S. see Katz, J.
Yariv, A., Rav-Noy, Z., Harder, C., Schreter, U., and Margalit, S. see Rav-Noy, Z.
Yarlagadda, R., and Hershey, J.E. see Hershey, J.E.
Yashima, H., Mitera, H., and Itoh, Y. Radiation-induced loss and colour-centre concentration in optical fibres p11
Yasu, M., Kawachi, M., and Edahiro, T. see Kawachi, M.
Yasuda, K., Shirai, T., Mikawa, T., Kishi, Y., and Kaneda, T. Incident wavelength dependence of pulse response in InP/InGaAsP/InGaAs avalanche photodiodes p662
Yasui, M., Katoh, K., Kuniyasu, S., and Watanabe, H. see Katoh, K.
Yasumoto, M., Enomoto, T., Ishihara, T., and Watanabe, K. see Enomoto, T.
Yaz, E. A priori bound for optimal stochastic control problem with multiplicative noise p137
Yeoh, F.S., and Xydeas, C.S. Noise reduction in ADPCM AQJ systems using quantiser correction at the receiver p420
Yevick, D., and Hermansson, B. see Hermansson, B.
Yevick, D., and Streifer, W. Radiative and non-radiative recombination law in lightly doped InGaAsP lasers p1012
Yokoshima, I., and Kawakami, T. see Kawakami, T.
Yokoyama, T., Maeda, Y., and Hide, I. see Maeda, Y.
Yoon, Tae-Hoon, Johnson, S.A., and Ra, Jung-Woong see Johnson, S.A.
Yoshikuni, Y., Nakano, Y., Motosugi, G., and Ikegami, T. see Nakano, Y.
Yoshimi, M., Kawabuchi, K., and Sakurai, S. see Kawabuchi, K.
Yoshizawa, N. Residual shrinkage of UV-cured acrylate-jacketed optical fibres p1073
Yoshizawa, N., Yabuta, T., and Noguchi, K. Residual nylon-jacketed fibre shrinkage caused by cooling p411
Yu, P.K., and Luk, K.M. High-order azimuthal modes in the open resonator p539
Yu, T., Chao, P.C., Smith, P.M., Wanuga, S., Hwang, J.C.M., Perkins, W.H., Lee, H., Eastman, L.F., and Wolf, E.D. see Chao, P.C.
Yuan, H.T., Su, S.L., Lyons, W.G., Tejayadi, O., Fischer, R., Kopp, W., Morkoc, H., and Mclevige, W. see Su, S.L.
Yue, G.Q., Nikoonahad, M., and Ash, E.A. see Nikoonahad, M.
Yust, M., Samid, I., Benedek, M., and Mirsky, U. see Samid, I.

Z

Zagozddzdon-Wosik, W., and Kuzimicz, W. Physical mechanisms of bandgap-narrowing in silicon p515
Zhong, S.S., and Lo, Y.T. Single-element rectangular microstrip antenna for dual-frequency operation p298
Ziegler, H., and Bromba, M.V.A. see Bromba, M.V.A.
Zieniutycz, W. Modes of propagation in slot line with layered substrate containing magnetised ferrite p135
Zimmer, G., and Fielder, H.L. see Fielder, H.L.
Zirath, H., and Keen, N.J. see Keen, N.J.
Zouh, Shou-Lion, and Wang, Shen-You see Wang, Shen-You

Subject index

ACOUSTIC DEVICES

Suppression of bulk modes in SAW transversal filters by gold transducers. L. Bickers p121

ACOUSTIC MICROSCOPY

Attenuation measurements of leaky waves by the acoustic line-focus beam. J. Kushibiki, Y. Matsumoto and N. Chubachi p512
Elastic profile measurements of optical fibres via reflections acoustic microscopy. C.K. Jen, G.W. Farnell, R.D. Kinsella and J. Bussière p922
Nondestructive SAW material attenuation via acoustic microscopy. R.D. Weglein p1023
Pulse compression acoustic microscopy at 750 MHz. M. Nikoonahad, G.Q. Yue and E.A. Ash p782
Velocity measurement of multiple leaky waves on germanium by line-focus-beam acoustic microscope using FFT. J. Kushibiki, K. Horii and N. Chubachi p404

ACOUSTIC WAVES

Behaviour of device structures based on IDT-launched bulk acoustic waves in a parallel-sided plate of lithium niobate. P.D. Bloch, N.G. Doe and E.G.S. Paige p871

ACOUSTO-OPTICS

Acousto-optic frequency shifter for single-mode fibres. K. Nosu, S.C. Rashleigh, H.F. Taylor and J.F. Weller p816
Acousto-optic phase modulator for single-mode fibres. K. Nosu, H.F. Raylor, S.C. Rashleigh and J.F. Weller p605
Elastic profile measurements of optical fibres via reflections acoustic microscopy. C.K. Jen, G.W. Farnell, R.D. Kinsella and J. Bussière p922
Improved acousto-optic modulators for CO_2 heterodyne laser systems. K.F. Hulme and J.T. Pinson p254
Laser-beam attenuation measurement using acousto-optic modulator. T. Kawakami and I. Yokoshima p653
Multimode interference mechanism in V(z) curves obtained by acoustic line-focus beam. J. Kushibiki, K. Horii and N. Chubachi p359
Rayleigh wave suppression in reflection acoustic microscopy. M. Nikoonahad, P. Sivaprakasapillai and E.A. Ash p906
Simultaneous scanning optical and acoustic microscopy. F. Faridian and H.K. Wickramasinghe p159

ACTIVE FILTERS

Design of lowpass two-section generalised FLF active filters. M. Biey p639
Easily trimmed third-order RC-active-filter section with finite transmission zeros. J.M. Rollett p677

ALGORITHMS

Algorithm for VLSI chip floor plan. K. Ueda and H. Kitazawa p77
Efficient algorithm for common spanning tree problem. S.R. Schach p346

AMPLIFIERS

Digitally controlled amplifiers with fewer resistors and sensitivities. T.S. Rathore p646
Novel adaptive biasing amplifier. M.G. Degrauwe and W.M.C. Sansen p92
Simple digitally controlled amplifier. S.I. Koutzarov p268

ANALOGUE-DIGITAL CONVERSION

Improved method of digital/analogue and analogue/digital conversion. E.A. Faulkner p896
Switched-capacitor second-order noise-shaping coder. G. Lainey, R. Saint-laurens and P. Senn p148

ANNEALING

AlN capped annealing of Se and Sn implanted semi-insulating GaAs. R. Bensalem, N.J. Barrett and B.J. Sealy p112
Annealing behaviour of gamma-ray-induced electron traps in LEC n-InP. J. Koyama, J. Shirafuji and Y. Inuishi p609
Fast processing of 4 in silicon wafers using two 150 W halogen lamps. D.P. Vu, M. Haond, T.Ternisien D'Ouville, A. Perio and H. Mingam p4
Localisation of defects on SOI films via selective recrystallisation using halogen lamps. D. Bensahel, M. Haond, D.P. Vu and J.P. Colinge p464

ANTENNA ARRAYS

Frequency scanned circular antenna array. M.S. Smith p898
Sidelobe reduction using random methods for antenna arrays. M.S. Smith and T.G. Tan p931

ANTENNA FEEDERS

Helically corrugated circular waveguides as antenna feeders. F. Jecko and A. Papiernik p555
TE_{11} modes in straight and curved circular waveguide with 'deformed' cross-section. F. Jecko, N. Penaud and A. Papiernik p382

ANTENNA PHASED ARRAYS

Efficient analysis for infinite microstrip dipole arrays. S.M. Wright and Y.T. Lo p1043

ANTENNAS

4-layer inductive grid FSS at 45° incidence. M.A.A. El-Morsy, E.A. Parker and R.J. Langley p602
Analysis of the element pattern shape for circular arrays. T. Rahim p838
Approximate expression for the resonant frequency of a rectangular patch antenna. D.L. Sengupta p834
Cancellation performance degradation of a fully adaptive Yagi array due to inner-element coupling. Y. Leviatan, A.T. Adams, P.H. Stockmann and D.R. Meidaner p176
Contribution to the understanding of pattern coverage of an open-circuited microstrip wraparound antenna acting at half-wavelength resonance. G. Dubost p505
Crosspolarisation properties of reflector antennas with random surface errors. J.M.M. Vissers, M.H.A.J. Herben and E.J. Maanders p49
Dielectric image line leaky wave antenna for broadside radiation. K. Solbach and B. Adelseck p640
Double-square frequency-selective surfaces and their equivalent circuit. R.J. Langley and E.A. Parker p675
Driving-point impedance of a linear cylindrical antenna. M.E. Bialkowski and P.J. Khan p216
Dual frequency microstrip antenna. Ramesh Garg and K.V.S. Rao p357
Effect of antenna size on OTS signal scintillations and their seasonal dependence. F. Rücker and F. Dintelmann p1032
Effects of choke-load position on radiation properties in double-choked small horn antennas. K. Miyata and M. Suzuki p329
Effects of wire radius and arm bend on a rectangular spiral antenna. H. Nakano, J. Yamauchi and K. Nogami p957
Efficient analysis for infinite microstrip dipole arrays. S.M. Wright and Y.T. Lo p1043
Far field radiated by short-circuited microstrip antenna acting at a quarter-wavelength resonance. G. Dubost p737
Frequency scanned circular antenna array. M.S. Smith p898
Helically corrugated circular waveguides as antenna feeders. F. Jecko and A. Papiernik p555
High-efficiency satallite antenna. A. Saitto, D. Patel, G. Doro and B. Trombetta p307
High-precision measurements on a compact antenna test range. P.A. Beeckman p769
Mutual coupling between short-circuited microstrip antennas. E. Penard and J.P. Daniel p178
New monopulse tracking radar. F.R. Connor p438
Numerical analysis of 4-arm Archimedean spiral antenna. H. Nakano, J. Yamauchi and S. Hashimoto p78
Offset spherical dual-reflector antenna. R.C. Brown, P.J.B. Clarricoats and P. Ramanujam p912
Optoelectronically pulsed slot-line antennas. R. Heidemann, Th. Pfeiffer and D. Jäger p316
Performance of small primary feeds with trapezoidal and sinusoidal corrugations. A.A. Kishk, L. Shafai and A. Ittipiboon p297
Performance of two tripole arrays as frequency-selective surfaces. J.C. Vardaxoglou and E.A. Parker p709
Prediction of scattering cross-section reductions due to plate orthogonality errors in trihedral radar reflectors. K.M. Keen p115
Probe correction in the near field measurements by pseudosampling technique. G. D'Elia, G. Leone and R. Pierri p856
Rectangular dielectric resonator antenna. M.W. McAllister, S.A. Long and G.L. Conway p218
Reduction of sidelobe level of reflector antennas by covering feed struts with a periodic structure. V. Hombach p371
Sidelobe reduction using random methods for antenna arrays. M.S. Smith and T.G. Tan p931
Simplified linearly polarised contoured beam reflector antenna for a European coverage requirement. G.A.E. Crone and A.G. Roederer p720
Single-element rectangular microstrip antenna for dual-frequency operation. S.S. Zhong and Y.T. Lo p298
Theory and design considerations for a new millimetre-wave leaky groove-guide antenna. P. Lampariello and A.A. Oliner p18
Unique reflector arrangement with very wide field of view for multibeam antennas. C. Dragone p1061
Uplink depolarisation control in TV feeder link earth stations. M. Nouri p374
Use of radio telescopes or satellite earth station antennas as ultra-high scattering cross-section calibration targets for spaceborne remote sensing radars. K.M. Keen p225
Waveguide slot antenna with a coupled dipole above the slot. Yong-Hee Lee, Dong-Hee Hong and Jung-Woong Ra p280

ATTENUATION

Attenuation changes in optical fibres due to hydrogen. M. Fox and S.J. Stannard-Powell p916
Attenuation measurements on single pieces of fibre and extrapolation over longer distances. G. Cancellieri e355
Increased attenuation in optical fibres caused by diffusion of molecular hydrogen at room temperature. K.J. Beales, D.M. Cooper and J.D. Rush p917
Long-term precipitation rate statistics for north-east of Spain. M. Puigcerver, S. Alonso, J. Lorente and E. Vilar p129

AVALANCHE DIODES

High-performance avalanche photodiode with separate absorption 'grading' and multiplication regions. J.C. Campbell, A.G. Dentai, W.S. Holden and B.L. Kasper p818
Incident wavelength dependence of pulse response in InP/InGaAsP/InGaAs avalanche photodiodes. K. Yasuda, T. Shirai, T. Mikawa, Y. Kishi and T. Kaneda p662
Lattice-matched and mismatched multiquantum-well heterostructure photodiodes for operation at 1·1 to 1·5 μm. P.K. Bhattacharya and V.K. Tripathi p924
Noise and responsivity of commercial p^+n Ge avalanche photodiodes. M.C. Brain p813

BINARY ARITHMETIC

Two's complement extension of a parallel binary division by ten. F.E. Petry p718

BIOMEDICAL ELECTRONICS

Imaging spatial distributions of resistivity using applied potential tomography. D.C. Barber, B.H. Brown and I.L. Freeston p933
Radiometer input circuit requirements for microwave thermography. D.V. Land p1040

BIPOLAR DEVICES

(GaAl)As/GaAs heterojunction bipolar transistors with graded composition in the base. D.L. Miller, P.M. Asbeck, R.J. Anderson and F.H. Eisen p367
Bipolar transistor with graded band-gap-base. J.R. Hayes, F. Capasso, A.C. Gossard, R.J. Malik and W. Wiegmann p410

Gigabit logic bipolar technology : advanced super self-aligned process technology. T. Sakai, S. Konaka, Y. Kobayashi, M. Suzuki and Y. Kawai p283
High-speed GaAlAs-GaAs heterojunction bipolar transistors with near-ballistic operation. D. Ankri, W.J. Schaff, P. Smith and L.F. Eastman p147
High-speed GaAs heterojunction bipolar phototransistor grown by molecular beam epitaxy. D. Ankri, W.J. Schaff, J. Barnard, L. Lunardi and L.F. Eastman p278
Molecular beam expitaxial double heterojunction bipolar transistors with high current gains. S.L. Su, W.G. Lyons, O. Tejayadi, R. Fischer, W. Kopp, H. Morkoç, W. Mclevige and H.T. Yuan p128
Translinear logic—a new technique in bipolar technology. A.J. Kemp p349

BIREFRINGENCE

Enhancement of birefringence in polarisation-maintaining fibres by thermal annealling. A. Ourmazd, R.D. Birch, M.P. Varnham, D.N. Payne and E.J. Tarbox p143
New single-mode single-polarisation optical fibre. A.W. Snyder and F. Rühl p185
Novel polarisation phenomena on anisotropic multimoded fibres. A.W. Snyder and F. Rühl p401
Polarimetric strain gauges using high birefringence fibre. M.P. Varnham, A.J. Barlow, D.N. Payne and K. Okamoto p699
Practical single-polarisation anisotropic fibres. A.W. Snyder and F. Rühl p687
Single-polarisation operation of highly birefringent bow-tie optical fibres. M.P. Varnham, D.N. Payne, R.D. Birch and E.J. Tarbox p246

CABLES

Characteristics of wire-space-type submarine optical cable. Y. Kimura, Y. Murakami, K. Noguchi and K. Ishihara p595
Infra-red optical loss increase for silica fibre in cable filled with water. N. Uesugi, Y. Murakami, C. Tanaka, Y. Ishida, Y. Mitsunaga, Y. Negishi and N. Uchida p762
Optical-fibre unit for optical submarine cable. H. Yamamoto, Y. Namihira and Y. Niiro p125
Residual nylon-jacketed fibre shrinkage caused by cooling. N. Yoshizawa, T. Yabuta and K. Noguchi p411
Temperature stability of transit time delay for a single-mode fibre in a loose tube cable. L.A. Bergman, S.T. Eng and A.R. Johnston p865
Transmission loss increase in optical fibres due to hydrogen permeation. K. Mochizuki, Y. Namihira and H. Yamamoto p743

CALIBRATION

Extended calibration aid for six-port network analysers. C.M. Potter and C.M. Snowden p787
The case for using a matched load standard for six-port calibration. P.I. Somlo p979

CIRCUIT THEORY AND DESIGN

4–20 GHz magnetostatic-wave delay-line oscillator. W. Ishak p930
6-bit 25MHz NMOS parallel A/D convertor. H.L. Fielder and G. Zimmer p348
Analysis of SC networks using continuous-time four-port equivalents. P.V. Ananda Mohan, V. Ramachandran and M.N.S. Swamy p1094
CMOS current comparator circuit. D.A. Freitas and K.W. Current p695
Calculating transfer function and its first- and second-order sensitivities using one network analysis. P.H. diMambro p421
Comment and reply on Calculating transfer function and its first- and second-order sensitivities using one network analysis. J.K. Fidler and P.H. di Mambro p914
Digital control of a two-terminal resistance. V.G.K. Murti p514
Digitally controlled amplifiers with fewer resistors and sensitivities. T.S. Rathore p646
Dual translinear voltage/current convertor. A. Fabre p1030
Efficient algorithm for common spanning tree problem. S.R. Schach p346
Electronic frequency tuning of trapatt oscillators. N. Nazoa-Ruiz and C.S. Aitchison p493
Enhanced regenerative switching circuit for power transistors. A. Akademir p631
Exact design of strays-insensitive switched-capacitor highpass ladder filters. R.B. Datar and A.S. Sedra p1010
Floating ideal FDNR using current conveyors. S. Nandi, P.B. Jana and R. Nandi p251
General sensitivity formulas for lossless two-ports. H.J. Orchard, G.C. Temes and T. Cataltepe p576
High-dynamic-range AM detector for data logging applications. M.L. Heron and R.J. Rose p1051
Inductive and capacitive VAR compensation with forced commutated high-frequency cycloconvertors. M.A. Taoud, F. Spronck and F. DeBuck p203
Integrable tunable sinusoid oscillator using DVCCS. A.R. Saha, R. Nandi and S. Nandi p745
Modes of operation in dual-gate MESFET mixers. H. Ashoka and R.S. Tucker p428
Modified C-2C ladder voltage divider for application in PCM A/D convertors. S.P. Singh, A. Prabhakar and A.B. Bhattacharyya p788
Noninverting parasitic-compensated bilinear SC integrator with only one amplifier. S. Eriksson and H. Akhlaghi p450
Novel adaptive biasing amplifier. M.G. Degrauwe and W.M.C. Sansen p92
Numerical algorithm for pole-sensitivity study of LC ladder networks. E.C. Tan p7
Rectangular to polar conversion. K.M. Ibrahim and M.A.H. AbdulKarim p530
SC integrator for high-frequency applications. G. Fischer and G.S. Moschytz p495
Semi-lossy two-port and a theorem concerning RLCn networks. L.R.G. Versfeld p157
Simple digitally controlled amplifier. S.I. Koutzarov p268
Simple low-cost correlator and multiplier circuits. P.J. Glen e30
Stochastic approximation approach to statistical circuit design. M.A. Styblinski and A. Ruszczynski p300
Stray-insensitive switched-capacitor-network realisation for voltage transfer functions. G. Kabuli and F. Anday p60
Switched-capacitor digital multiplier. K. Watanabe and G.C. Temes p33
System models for optimal self-tuning control. M.J. Grimble p843
T-cell SC integrator synthesises very large capacitance ratios. P. VanPeteghem and W. Sansen p541

CODES AND CODING

Analysis of dicoding in optical-fibre communication systems. R.C. Hooper p304
Coding technique for progressive transmission of static images. R.A. Packwood and G.R. Martin p412
Efficient burst-correcting cyclic codes. V.C. daRocha p44
Family of order-4 four-level orthogonal transforms. W.K. Cham p869
Generation of codes with good autocorrelation properties. M.J. Rutter and P.M. Grant p571
Hardware-oriented algorithms for the fast symbolic calculation of the DFT. T. Beth and W. Fumy p901
High-speed decoding technique for slip detection in data transmission systems using modified cyclic block codes. S.R. Ely, D.T. Wright and C.C. Goodyear p109
Linear algebra and extended mappings generalise public key cryptographic knapsack algorithms. Y. Desmedt, J. Vandewalle and R. Govaerts p379
New syndrome decoder for (n, 1) convolutional codes. I.S. Reed and T.K. Truong p344
Optoelectronic 10 Gbit/s code generation by a picosecond photoconductive device. G. Veith, E.O. Göbel and J. Kuhl p1072
Runlength-limited code with small error propagation. K.A. Schouhamer Immink p323
Sets of complementary sequences. D.V. Sarwate p711
Simplifying key management in electronic fund transfer point of sale systems. H.J. Beker, J.M.K. Friend and P.W. Halliden p442
Totally self-checking checker for 3N arithmetic codes. N. Gaitanis p685
Transmission code for high-speed fibre-optic data networks. A.X. Widmer and P.A. Franaszek p202
Two's complement extension of a parallel binary division by ten. F.E. Petry p718

COMPARATORS (CIRCUITS)

CMOS current comparator circuit. D.A. Freitas and K.W. Current p695
New ultra-high-speed GaAs strobed comparators. D. Meignant and M. Binet p67

COMPUTER-AIDED DESIGN

CAD broadband matching design. S.K.S. Lu p146
Simplified calibration equations for computer-corrected network analyser using matched-impedance normalisation. O. Tenen p314

COMPUTERS

Control of locally testable duplex system for large-scale implementation. F. Lombardi p392
Hardware method of synchronising processes without using a clock. D.M. Taub p772
Limitations of looped-line scheme for overcoming wired-OR glitch effects. D.M. Taub p579
Mixed measure error function for nonlinear mapping algorithms. Da-Kai Wang p634
Overcoming the effects of spurious pulses on wired-OR lines in computer bus systems. D.M. Taub p340
Radix-2 FFT butterfly processor using distributed arithmetic. I.R. Mactaggart and M.A. Jack p43
Really prime classes implying only really prime classes. G.V. Russo, G. Palama and A.C. Neve p500

CONTROL SYSTEMS

S-domain realisation of sea spectrum. C.K. Li and J.R. Leigh p186

CONTROL THEORY

A priori bound for optimal stochastic control problem with multiplicative noise. E. Yaz p137
Balanced minimal realisation of SISO systems. C.P. Therapos p424
Continued-fraction algorithm for biased model reduction. T.N. Lucas p444
Efficient algorithm for reduction by continued-fraction expansion about $s = 0$ and $s = a$. T.N. Lucas p991
Frequency-domain identification of transmission-zero locations of linear multivariable plants. B. Porter and A.H. Jones p258
Minimised error criterion in recursive least-squares parameter estimation. A.J. Udink ten Cate p1097
Optimisation in linear system reduction. Sau-Man Yang and Rein Luus p635
Simple method of computation of Wiener-Lee decomposition. C.P. Kwong p747

CONVERTORS

Dual translinear voltage/current convertor. A. Fabre p1030

CONVOLUTION

New syndrome decoder for (n, 1) convolutional codes. I.S. Reed and T.K. Truong p344

CRYSTAL FILTERS

Generalised lattice transformation for crystal filters. R.C. Peach p358
S-parameter model of dual-gate GaAs MESFET. H. Ashoka and R.S. Tucker p39

CRYSTAL GROWTH

Ge-seeded crystallisation on SiO_2 by using a slider system with RF heated strip heater. Y. Ohmachi, T. Nishioka and Y. Shinoda p274

CURRENT CONVEYORS

Floating ideal FDNR using current conveyors. S. Nandi, P.B. Jana and R. Nandi p251

DATA TRANSMISSION

560 Mbit/s transmission experiment using 1·3 μm InGaAsP/InP LED. H. Grothe, G. Muller, W. Harth and W. Proebster p909
Biased Gaussian noise source for digital-transmission-system simulations. P.F. Adams p549

Equivalence between sinusoidal roll-off and trapezoidal response functions. X.C. Luo p477
Estimation of minimum-phase impulse responses. D.G.W. Ingram and F. Takawira p946
High-speed decoding technique for slip detection in data transmission systems using modified cyclic block codes. S.R. Ely, D.T. Wright and C.C. Goodyear p109
Simple low-cost correlator and multiplier circuits. P.J. Glen e30

DELAY LINES

4–20 GHz magnetostatic-wave delay-line oscillator. W. Ishak p930
Linearly dispersive time-delay control of magnetostatic surface wave by variable ground-plane spacing. Kok Wai Chang, J.M. Owens and R.L. Carter p546

DEMODULATORS AND DEMODULATION

Modification of phase-locked-loop performance using a sample-and-hold circuit. D.V. Thiel and Wu Xiao Wu p681

DETECTORS AND DETECTOR CIRCUITS

High-dynamic-range AM detector for data logging applications. M.L. Heron and R.J. Rose p1051

DIELECTRIC WAVEGUIDES

Accurate analysis of the abrupt discontinuity in a dielectric waveguide. T. Takenaka and O. Fukumitsu p806
Loss reduction in curved dielectric optical slab waveguide. M. Geshiro and S. Sawa p321

DIELECTRICS AND DIELECTRIC DEVICES

Edge diffraction by dielectric wedge of arbitrary angle. S.-Y. Kim, J.-W. Ra and S.-Y. Shin p851
Highly-stable FET DROs using new linear dielectric resonator material. C. Tsironis and D. Hennings p741
Rectangular dielectric resonator antenna. M.W. McAllister, S.A. Long and G.L. Conway p218
Shielded dielectric resonators. H.J. Schmitt p243

DIFFUSION

Effects of hydrogen diffusion on optical fibre loss increase. Y. Namihira, K. Mochizuki, M. Kuwazuru and Y. Iwamoto p1034
Grain boundary diffusion in columnar structure polycrystalline materials. H.F. Ragaie p294
Use of a sputtered SiO_2 coating for surface protection during 'leaky tube' diffusion of Zn into GaAs. J.L. Edwards and R.J. Roedel p962

DIGITAL CIRCUITS

Improved method of digital/analogue and analogue/digital conversion. E.A. Faulkner p896
Jitter accumulation with SAW timing extraction at 325 Mbaud. S.D. Walker, R.B.P. Carpenter and P. Cochrane p193
Simple clock extraction circuit using a self sustained monostable multivibrator output signal. H.-H. Witte and S. Moustakas p897
Universal multiple-output second-order digital filter. C. Eswaran and A. Antoniou p683

DIGITAL COMMUNICATION SYSTEMS

Error rates for M-ary noncoherent FSK in impulsive reverberation noise. A.M. Maras, H. Davidson and A.G.J. Holt p405
Estimation of minimum-phase impulse responses. D.G.W. Ingram and F. Takawira p946
Signal-to-noise performance of the pulse-interval and width-modulation system. S.D. Marougi and K.H. Sayhood p528

DIGITAL CONTROL

Digital control of a two-terminal resistance. V.G.K. Murti p514
Simple digitally controlled amplifier. S.I. Koutzarov p268

DIGITAL FILTERS

Design of 2-D recursive digital filters satisfying prescribed magnitude and constant group delay response. S. Golikeri, M. Ahmadi and V. Ramchandran p9
Further results on maximally flat nonrecursive digital filters. M.V.A. Bromba and H. Ziegler e30
General-purpose adaptor structure for wave-digital-filter realisation. N. Petrie, J. Mavor and S.G. Smith p1038
Isomorphic FIR digital filters. G. Martinelli, G. Orlandi, C.A. Rocchini and M. Salerno p71
Modified canonic ladder realisation of IIR digital filters (comment). J.I. Acha, A. Ayerbe and R. Robles-Diaz p381
Modified canonic ladder realisation of IIR digital filters. Gong-Tao Yan p62
Quantisation effects in second-order wave digital filters. E.S.K. Liu and L.E. Turner p487
Stabilisation of 2-D digital filters via Hilbert transform. P.S. Reddy and H.S.N. Murthy p68
s-z transformations for digital filters. R. Ishii p350

DIGITAL SIGNALLING

Equivalence between sinusoidal roll-off and trapezoidal response functions. X.C. Luo p477

DIGITAL SYSTEMS

Jitter accumulation with SAW timing extraction at 325 Mbaud. S.D. Walker, R.B.P. Carpenter and P. Cochrane p193

DIODES

Implications of velocity overshoot in heterojunction transit-time diodes. P.A. Blakey, J.R. East, M.E. Elta and G.I. Haddad p510

DIPOLE ANTENNAS

Efficient analysis for infinite microstrip dipole arrays. S.M. Wright and Y.T. Lo p1043

DIRECTIONAL COUPLERS

Broadband microstrip directional coupler. N.V. Nair and A.K. Mallick p809
Frequency-selective combline directional couplers designed as novel filters and multiplexers. B.A. Herscher and J.E. Carroll p691
Low-cost integrated RF six-port. C.M. Potter and C.M. Snowden p815
Polarisation-maintaining single-mode-fibre resonator. E.-J. Bachus, R.-P. Braun and B. Strebel p1027
Polarisation-preserving coupler with self-aligning birefringent fibres. W. Pleibel, R.H. Stolen and S.C. Rashleigh p825
Three-line microstrip directional coupler with dielectric overlay. K. Shibata, H. Yanagisawa and Y. Ishihata p911

DISPERSION (WAVE)

Comparing the chromatic dispersions of two single-mode silica fibres with pure F and pure GeO_2 doping, respectively. T. Müller and W.E. Heinlein p692

DISTORTION

Application of modified Ebers-Moll model to nonlinear distortion analysis of transistor amplifiers. H. Kuntman p126

EIGEN VALUES

System matrices of wave-digital filter related by similarity transformations. E.C. Tan p333

ELECTRO-OPTICS

Long-wavelength Ti-$LiNbO_3$ waveguide electro-optic TE↔TM convertor. R.C. Alferness and L.L. Buhl p40

ELECTROMAGNETIC FIELD THEORY

Analysis of quasicyclic ferrite junction by point-matching technique. J. Mazur p140
Driving-point impedance of a linear cylindrical antenna. M.E. Bialkowski and P.J. Khan p216

ELECTROMAGNETIC WAVES

Excitation of multimode guide by stripline-fed slots. B.N. Das and A. Biswas e309
Finite-element analysis of edge resonance in a semi-infinite elastic plate. M. Koshiba, S. Karakida and M. Suzuki p256
Generation of field scattered by imperfectly conducting objects from the solution of a perfectly conducting object. A.A. Sebak, L. Shafai and A. Mohsen p25
High-order azimuthal modes in the open resonator. P.K. Yu and K.M. Luk p539
Inductive twin-strip gratings in incident TE waves. M.J. Archer p118
Inverse scattering solutions of scalar Helmholtz wave equation by a multiple source moment method. S.A. Johnson, Tae-Hoon Yoon and Jung-Woong Ra p130
Modes of propagation in slot line with layered substrate containing magnetised ferrite. W. Zieniutycz p135
New approach to calculation of electromagnetic scattering by a perfectly conducting rectangular cylinder. S. Sugimoto and S. Kozaki p861
Sampling approach for fast computation of scattered fields. O.M. Bucci and G.Di Massa p15
Tractable form of the dyadic Green function for application to multilayered isotropic media. T. Sphicopoulos, V. Teodoridis and F. Gardiol p1055

ELECTRON MOBILITY

Dependence of electron mobility on spacer thickness and electron density in modulation-doped $Ga_{0.47}In_{0.53}As/Al_{0.48}In_{0.52}As$ heterojunctions. K.H. Hsieh, H. Ohno, G. Wicks and L.F. Eastman p160
New technique for semiconductor device modelling. P.K. Goswami and J.E. Sitch p1087

EPITAXY AND EPITAXIAL GROWTH

Dependence of electron mobility on spacer thickness and electron density in modulation-doped $Ga_{0.47}In_{0.53}As/Al_{0.48}In_{0.52}As$ heterojunctions. K.H. Hsieh, H. Ohno, G. Wicks and L.F. Eastman p160
Growth of $Al_{0.3}Ga_{0.7}As$ by molecular beam epitaxy in the forbidden temperature range using As_2. L.P. Erickson, T.J. Mattord, P.W. Palmberg and R. Fischer p632
High-speed GaAs heterojunction bipolar phototransistor grown by molecular beam epitaxy. D. Ankri, W.J. Schaff, J. Barnard, L. Lunardi and L.F. Eastman p278
$In_xGa_{1-x}As$-epitaxy with metalorganic adducts. P. Speier, F. Scholz, K.W. Benz, H. Renz and J. Weidlein p728
Incorporation of Sb IN $GaAs_{1-x}Sb_x$ ($x<0.15$) by molecular beam epitaxy. J. Klem, R. Fischer, T.J. Drummond, H. Morkoç and A.Y. Cho p453
Integral packaging for millitmetre-wave GaAs impatt diodes prepared by molecular beam expitaxy. B. Bayraktaroglu and H.D. Shih p327
LPE growth of InP/InGaAs/InP DH wafers on (100) InP substrates. N.S. Takahashi, T. Sasaki, A. Fukushima and S. Kurita p402
Light sensitivity of $Al_{0.25}Ga_{0.75}As/GaAs$ modulation-doped structures grown by molecular beam epitaxy: effect of substrate temperature. R. Fischer, D. Arnold, R.E. Thorne, T.J. Drummond and H. Morkoç p200
Low threshold current GaAs/GaAlAs GRIN-SCH stripe lasers grown by OMVPE. M. Krakowski, P. Hirtz, R. Blondeau, S.D. Hersee, M. Baldy, B. de Cremoux and J.P. Duchemin p1082
Low-pressure MOVPE growth of Sn-doped GaAs. A.P. Roth, R. Yakimova and V.S. Sundaram p1062
Low-temperature expitaxial growth of (100) silicon. M. Milosavljevic, C. Jeyens and I.H. Wilson p669
Preserving InP surface corrugations for 1.3 μm GaInAsP/InP DFB lasers from thermal deformation during LPE process. J. Kinoshita, H. Okuda and Y. Uematsu p215

EQUALISERS

Open-loop transversal equaliser of optimal length. M.J. Rutter and C.F.N. Cowan p208

EQUIVALENT CIRCUITS

Analytic transformation of the generation-recombination centres in the transmission-line equivalent-circuit model of a semiconductor. C.Y. Kwok p947
Equivalent-circuit consideration of dual-gate MESFETs at high frequency. B. Kim p705

ERROR-CORRECTION CODES

Efficient burst-correcting cyclic codes. V.C. da Rocha p44

FAST FOURIER TRANSFORMS

Radix-2 FFT butterfly processor using distributed arithmetic. I.R. Mactaggart and M.A. Jack p43
Sampling approach for fast computation of scattered fields. O.M. Bucci and G.Di Massa p15

FERRITES

New multilayered slot-line structures with high nonreciprocity. G. Böck p966

FIBRE OPTICS

Accurate method for characterising single-mode fibres: theory and experiment. A.K. Ghatak, R. Srivastava, I.F. Faria, K. Thyagarajan and R. Tiwari p97
Direct rotation-rate detection with a fibre-optic gyro by using digital data processing. K. Böhm, P. Marten, E. Weidel and K. Petermann p997
Transmission code for high-speed fibre-optic data networks. A.X. Widmer and P.A. Franaszek p202

FIELD-EFFECT DEVICES

GaAs FET power amplifier module with high efficiency. K. Chiba and N. Kanmuri p1025
MIM gate FET : new GaAs enhancement-mode transistor. E. Kohn and J.M. Dortu p434
Monte Carlo particle simulation of a GaAs short-channel MESFET. Y. Awano, K. Tomizawa, N. Hashizume and M. Kawashima p20

FIELD-EFFECT TRANSISTORS

Amorphous-silicon FET array for LCD panel. K. Katoh, M. Yasui, S. Kuniyasu and H. Watanabe p506
Effects of grain boundary passivation on the characteristics of *p*-channel MOSFETs in LPCVD polysilicon. S.D.S. Malhi, R.R. Shah, H. Shichijo, R.F. Pinizzotto, C.E. Chen, P.K. Chatterjee and H.W. Lam p993
Enhancement-mode metal/(Al, Ga)As/GaAs buried-interface field-effect transistor (BIFET). T.J. Drummond, W. Kopp, D. Arnold, R. Fischer, H. Morkoç, L.P. Erickson and P.W. Palmberg p986
Equivalent-circuit consideration of dual-gate MESFETs at high frequency. B. Kim p705
High-power InP MISFETs. M. Armand, D.V. Bui, J. Chevrier and N.T. Linh p433
InP MIS transistors with grown-in sulphur dielectric. G. Post, P. Dimitriou, A. Scavennec, N. Duhamel and A. Mircea p459
Instabilities in modulation doped field-effect transistors (MODFETs) at 77 K. R. Fischer, T.J. Drummond, W. Kopp, H. Morkoç, K. Lee and M.S. Shur p789
Inverted transistor gate with FET load. P.H. Saul, P.C. Hunt and R.S. Walker p303
Negative differential resistance in GaAs MESFETs. T.A. Fjeldly and J.S. Johannessen p649
New $Ga_{0.47}In_{0.53}As$ sheet-charge field-effect transistor for long-wavelength optoelectronic integration. C.Y. Chen, K. Alavi, A.Y. Cho, P.A. Garbinski and Y.M. Pang p791
New method for determining the series resistances in a MESFET or TEGFET. P. Urien and D. Delagebeaudeuf p702
Novel design of travelling-wave FET. Ce-Jun Wei p461
Novel vertical GaAs FET structure with submicrometre source-to-drain spacing. E. Kohn, J. Magarshack, U. Mishra and L.F. Eastman p1021
Positive and negative charge generation by hot carries in n-MOSFETs. B. Borchert, K.R. Hofmann and G. Dorda p746
Simulation of GaAs submicron FET with hot-electron injection structure. K. Tomizawa, Y. Awano, N. Hashizume and M. Kawashima p697

FILTERS

Analytical expressions of 2-D complex cepstrum. K.P. Prasad and R. Unbehauen p831
Characterisation of second-order discrete-time filters. A. Nishihara p84
Design of 2-D recursive digital filters satisfying prescribed magnitude and constant group delay response. S. Golikeri, M. Ahmadi and V. Ramchandran p9
Design of lowpass two-section generalised FLF active filters. M. Biey p639
Design of recursive filters to simulate clutter for the evaluation of radar MTI processors. D.C. Cooper and P. Rogers p47
Digital-filter functions with fast coefficient implementation: an addendum. R. Venkatesan and J.J. Narraway p84
Direct- and image-frequency transfer functions of time-variant switched-capacitor networks. P. Lutz and H. Weinrichter p354
Easily trimmed third-order RC-active-filter section with finite transmission zeros. J.M. Rollett p677
Efficient algorithm for adaptive normalised lattice filters. D.T. Nguyen p1098
Efficient positive coefficient algorithm for image processing. YongChing Lim, A.H. Kayran and S.R. Parker p324
Fast realisation of 2-D digital filters using logarithmic number systems. G.L. Sicuranza p449
Further results on maximally flat nonrecursive digital filters. M.V.A. Bromba and H. Ziegler e30
General-purpose adaptor structure for wave-digital-filter realisation. N. Petrie, J. Mavor and S.G. Smith p1038
Generalised lattice transformation for crystal filters. R.C. Peach p358
Integrated MOS offset error canceller for analogue adaptive transversal filter. T. Enomoto, T. Ishihara, M. Yasumoto and K. Watanabe p968
Isomorphic FIR digital filters. G. Martinelli, G. Orlandi, C.A. Rocchini and M. Salerno p71
Low-insertion-loss, temparature-compensated dielectric filters for microwave integrated circuits. G.B. Morgan and K.W. Davidson p545
Low-loss unidirectional SAW filters using integrated microinductors. J.K. Gautam, T. Meguro and K. Yamanouchi p858
Microprocessor simulation of variable sea conditions. C.K. Li and J.R. Leigh p397
Microwave-frequency response of an optical-fibre delay-line filter. S.A. Newton and P.S. Cross p480
Modified canonic ladder realisation of IIR digital filters.(Comment). J.I. Acha, A. Ayerbe and R. Robles-Diaz p381
Modified canonic ladder realisation of IIR digital filters. Gong-Tao Yan p62
Noise-cancelling switched-capacitor (SC) filtering technique. K.K.K. Lam and M.A. Copeland p810
Novel stray-insensitive SC bandpass filter. P.V. AnandaMohan, V. Ramachandran and M.N.S. Swamy p615
Numerical algorithm for pole-sensitivity study of LC ladder networks. E.C. Tan p7
Open-loop transversal equaliser of optimal length. M.J. Rutter and C.F.N. Cowan p208
Parasitics-compensated building blocks for switched-capacitor filters. T. Inoue and F. Ueno p970
Quantisation effects in second-order wave digital filters. E.S.K. Liu and L.E. Turner p487
S-domain realisation of sea spectrum. C.K. Li and J.R. Leigh p186
Sensitivity behaviour of several two op-amp inverting and noninverting integrators. D. Báez-López p835
Stabilisation of 2-D digital filters via Hilbert transform. P.S. Reddy and H.S.N. Murthy p68
Stability test for switched-capacitor filters. J. Taylor p89
Surface-acoustic waves bandpass filters on ZnO/Pyrex substrate with zero temperature coefficient. P. Defranould p823
System matrices of wave-digital filter related by similarity transformations. E.C. Tan p333
Systolic convolution array. J.A.E. Simons p874
Technique for flexible multidimensional filter design. D.A. Jenkins and D.W. Parker p1088
Terminations for component-simulation-type S C ladder filters. P.V. Ananda-Mohan, V. Ramachandran and M.N.S. Swamy p29
Universal multiple-output second-order digital filter. C. Eswaran and A. Antoniou p683
s-z transformations for digital filters. R. Ishii p350

FOURIER TRANSFORMS

Estimation of truncation and aliasing errors involved in DFT computation. R. Ishii and M. Wakamoto p770
Fast hardware implementation of the Winograd Fourier transform algorithm. M.D. Macleod and N.L. Bragg p363
General form for representing the Fourier transform. K.M. Henein and R.A. King p767
Hardware-oriented algorithms for the fast symbolic calculation of the DFT. T. Beth and W. Fumy p901

FREQUENCY MULTIPLIERS

High-efficiency Q-to-W-band MIC frequency doubler. R.S. Tahim, G.M. Hayashibara and K. Chang p219

GALLIUM ARSENIDE

Bulk unipolar diodes in MBE GaAs. J.M. Woodcock and J.J. Harris p181
Control of the height of Schottky barriers on MBE GaAs. J.M. Woodcock and J.J. Harris p93
Low-pressure MOVPE growth of Sn-doped GaAs. A.P. Roth, R. Yakimova and V.S. Sundaram p1062

GALLIUM COMPOUNDS

Hydrogenation of electron traps in bulk GaAs and GaP. S.J. Pearton, E.E. Haller and A.G. Elliott p1052

GAS LASERS

Improved acousto-optic modulators for CO_2 heterodyne laser systems. K.F. Hulme and J.T. Pinson p254
Monomode fibre fusion splicing with CO_2 laser. L. Rivoallan, J.Y. Guilloux and P. Lamouler p54

GLASS

Rayleigh scattering in fluoride glass optical fibres. D.C. Tran, K.H. Levin, C.F. Fisher, M.J. Burk and G.H. Sigel, Jun. p165
Surface-acoustic waves bandpass filters on ZnO/Pyrex substrate with zero temperature coefficient. P. Defranould p823

GRAPHS AND GRAPH THEORY

Efficient algorithm for common spanning tree problem. S.R. Schach p346

HOLOGRAPHY

Optimum wavelength for long-wavelength LED systems. J.V. Wright p211

IDENTIFICATION

Statistical identification of difference equation representations for nonlinear systems. M. Korenberg p175

IMAGE PROCESSING

Application of sine transform in image processing. R.J. Clarke p490
Behaviour of a generalised covariance model in picture coding. N.C. Kim and J.K. Kim p260
Coding technique for progressive transmission of static images. R.A. Packwood and G.R. Martin p412
Computationally efficient discrete cosine transform algorithm. N. Nasrabadi and R. King p24
Efficient positive coefficient algorithm for image processing. YongChing Lim, A.H. Kayran and S.R. Parker p324

Entropy-coded hybrid differential pulse-code modulation. N.M. Nasrabadi, S.K. Pal and R.A. King p63
Evaluation of feature-extracted images for deaf communication. D.E. Pearson p629
Imaging spatial distributions of resistivity using applied potential tomography. D.C. Barber, B.H. Brown and I.L. Freeston p933
Phase tomography in microwave diagnostics. A.P. Anderson and R. Ait Mehdi p873
Real-time feature-extraction architecture for moving-picture transmission over telephone lines. S. Mizuno, D.E. Pearson and J.A. Robinson p949
Technique for flexible multidimensional filter design. D.A. Jenkins and D.W. Parker p1088

IMPATTS

140 GHz 70 mW CW output power with -type silicon single drift IMPATT diodes. J. Wenger p908
Assessment of millimetre-wave Si impatt material. L.A. Hing and J.E. Curran p1091
Predicted large-signal performance improvement by active compensation in microwave impatt amplifiers. A. Riris and C.S. Aitchison p1090

INDIUM COMPOUNDS

Anisotropic undercutting in (100) indium phosphide. B.R. Hemenway, J.E. Bowers and B.I. Miller p1049

INFRA-RED DETECTORS

Effect of electric fields on long-wavelength response of infra-red detectors. D.D. Coon and R.P.G. Karunasiri p284
Integrating infra-red detector with electronically modulated response. D.D. Coon, S. Gunapala, R.P.G. Karunasiri and H.-M. Muehlhoff p1070

INSTRUMENTATION

CMRR analysis of instrumentation amplifiers. J. Szynowski p547

INTEGRATED CIRCUITS

High-efficiency Q-to-W-band MIC frequency doubler. R.S. Tahim, G.M. Hayashibara and K. Chang p219
High-performance modulation-doped GaAs integrated circuits with planar structures. C.P. Lee and W.I. Wang p155
Integrated-circuit test structure which uses a vernier to electrically measure mask misalignment. B.M.M. Henderson, A.M. Gundlach and A.J. Walton p868
Inverted transistor gate with FET load. P.H. Saul, P.C. Hunt and R.S. Walker p303
Low-insertion-loss, temparature-compensated dielectric filters for microwave integrated circuits. G.B. Morgan and K.W. Davidson p545
Monolithic PIN/preamplifier circuit integrated on a GaAs substrate. O. Wada, H. Hamaguchi, S. Miura, M. Makiuchi, S. Yamakoshi, T. Sakurai, K. Nakai and K. Iguchi p1031
Solid-state devices in H-guide, groove guide and fence guide. F.A. Benson, P.A. Cudd and F.J. Tischer p657
Submicrometre X-ray printing with X-ray masks delineated by high-voltage electron-beam writing. K. Kawabuchi, S. Sakurai and M. Yoshimi p287
Subscriber line interface circuit LSI fabricated using high-voltage CMOS/SIMOX technology. S. Nakashima and Y. Maeda p1095
Translinear logic—a new technique in bipolar technology. A.J. Kemp p349
Use of a ^{252}Cf source in cosmic ray simulation studies on CMOS memories. T.K. Sanderson, D. Mapper, J.H. Stephen and J. Farren p373
VLSI digital polarity correlator based on an overloading counter technique. W.S. Blackley, M.A. Jack and J.R. Jordan p761
VLSI—are smaller devices and more complex chips mutually exclusive?. D.H. Roberts p1

INTEGRATED OPTICS

Fusion splicing between optical circuits and optical fibres. N. Shimizu, N. Imoto and M. Ikeda p96
Integrated optical polariser on $LiNbO_3$: Ti channel waveguides using proton exchange. M. Papuchon and S. Vatoux p612
M-type electrode planar guided-wave beam splitter. C.L. Lee, C.H. Huang and J.S. Horng p929
Monolithic integration of InGaAsP/InP LED and transistor—a light-coupled bistable electro-optical device. H. Grothe and W. Proebster p194
New diffraction grating profiles in InP for DFB lasers and integrated optics. L.D. Westbrook, A.W. Nelson and P.J. Fiddyment p1076
Optical losses in metal/SiO_2-clad Ti: $LiNbO_3$ waveguides. L.L. Buhl p659
Passive optical GaInAsP/InP waveguides. C. Bornholdt, W. Döldissen, D. Franke, N. Grote, J. Kraaser, U. Niggebrügge, H.P. Nolting, M. Schlak and I. Tiedke p81
Theory of integrated-optic diffraction gratings in low Δ waveguides. M.G.F. Wilson and S.W. Chan Wong p943

INTERFEROMETERS

Demodulation scheme fibre interferometric sensors employing laser frequency switching. A.D. Kersey, D.A. Jackson and M. Corke p102

JITTER

Power spectrum of sampled signals distorted by jitter. B. Szühbator p773

KALMAN FILTERS

Adèle, a fast suboptimal estimator for real-time deconvolution. G. Demoment and A. Segalen p86

LARGE-SCALE INTEGRATION

Method to sequentially address a large memory, suitable for LSI implementation. R. Sundblad p499

LASERS AND LASER APPLICATIONS

0.66 μm room-temperature operation of InGaAlP DH laser diodes grown by MBE. Y. Kawamura, H. Asahi, H. Nagia and T.T. Ikegami p163
0.81 μm band AlGaAs/GaAs double-channel planar buried-heterostructure laser with large optical cavity. M. Ueno, H. Kawano, T. Furuse and I. Sakuma p370
1 Gbit/s transmission experiment over 101 km of single-mode fibre using a 1.55 μm ridge guide C^3 laser. R.A. Linke, B.L. Kasper, J.S. Ko, I.P. Kaminow and R.S. Vodhanel p775
1.3 μm InGaAsP/InP multiquantum-well lasers grown by vapour-phase epitaxy. T. Yanase, Y. Kato, I. Mito, M. Yamaguchi, K. Nishi, K. Kobayashi and R. Lang p700
1.5 μm wavelength GaInAsP C^3 lasers: single-frequency operation and wide-band frequency tuning. W.T. Tsang, N.A. Olsson, R.A. Linke and R.A. Logan p415
1.55 μm multisection ridge lasers. J.E. Bowers, L.A. Coldren, B.R. Hemenway, B.I. Miller and R.J. Martin p523
10 kHz linewidth 1.5 μm InGaAsP external cavity laser with 55 nm tuning range. R. Wyatt and W.J. Devlin p110
10 Ghz active mode-locking of a 1.3 μm ridge-waveguide laser in an optical-fibre cavity. R.S. Tucker, G. Eisenstein and I.P. Kaminow p552
Aging characteristics of InGaAsP/InP DFB lasers. Y. Nakano, G. Motosugi, Y. Yoshikuni and T. Ikegami p437
Aging test of MOCVD shallow proton stripe GaInAsP/InP, DH laser diode emitting at 1.5 μm. M. Razeghi, P. Hirtz, R. Blondeau, B. de Cremoux and J.P. Duchemin p481
AlGaAs/GaAs multiquantum-well (MQW) laser applied to a monolithic integration with FET driver. S. Yamakoshi, T. Sanada, O. Wada, T. Fujii and T. Sakurai p1020
CW high-power single-mode operation of gain-guided stripe-geometry multiple-quantum-well lasers. C. Lindström, R.D. Burnham, T.L. Paoli, W. Streifer and D.R. Scifres p104
CW operation of 1.5 μm GaInAsP/InP buried-heterostructure laser with a reactive-ion-etched facet. O. Mikami, H. Akiya, T. Saitoh and H. Nakagome p213
Chirped picosecond injection laser pulse transmission in single-mode fibres in the minimum chromatic dispersion region. C. Lin and A. Tomita p837
Coupled-wave theory regarding phase-locked-array lasers. K. Otsuka p723
Demonstration of multilevel mutichannel optical frequency shift keying (FSK) with cleaved-coupled-cavity (C^3) semiconductor lasers. W.T. Tsang, N.A. Olsson, R.A. Logan and R.A. Linke p341
Direct observation of visibility curve of semiconductor lasers. W. Eickhoff, E. Brinkmeyer and H. Barfubbr p739
Dynamic behaviour of a GaAs-AlGaAs MQW laser diode. H. Iwamura, T. Saku, T. Ishibashi, K. Otsuka and Y. Horikoshi p180
Effect of Auger recombination on the threshold characteristics of gain-guided InGaAsP lasers. G.P. Agrawal and N.K. Dutta p974
Efficient coupling of laser diodes to tapered monomode fibres with high-index end. G.D. Khoe, J. Poulissen and H.M. deVrieze p205
Einstein relations for gain-guided semiconductor lasers. W. Elsässer and E.O. Göbel p335
Electrical tuning of semiconductor interferometric laser. H.A. Fattah and S. Wang p926
Electro-optic sampling with picosecond resolution. B.H. Kolner, D.M. Bloom and P.S. Cross p574
Experimental investigation of stability properties for a semiconductor laser with optical feedback. J.H. Osmundsen, B. Tromborg and H. Olesen p1068
Fabry-Perot cavity type 1.5 μm InGaAsP BH-laser amplifier with small optical-mode confinement. T. Mukai, T. Saitoh, O. Mikami and T. Kimura p582
Far-field distribution of semiconductor phase-locked arrays with multiple contacts. J. Katz, E. Kapon, C. Lindsey, S. Margalit and A. Yariv p660
Feedback-induced noise in index-guided semiconductor lasers and its reduction by modulation. K. Stubkjaer and M.B. Small p388
GaAlAs buried-heterostructure lasers grown by a two-step MOCVD process. C.S. Hong, D. Kasemset, M.E. Kim and R.A. Milano p759
GaAs/GaAlAs active-passive-interference laser. H.K. Choi and S. Wang p302
Generation of single-longitudinal-mode gigabit-rate optical pulses from semiconductor lasers through harmonic-frequency sinusoidal modulation. H. Kawaguchi and K. Otsuka p668
High-gain optical amplification of laser diode signal by Raman scattering in single-mode fibres. E. Desurvire, M. Papuchon, J.P. Pocholle, J. Raffy and D.B. Ostrowsky p751
High-peak-power asymmetric double-heterostructure (GaAl)As-GaAs injection laser. I. Samid, M. Benedek, U. Mirsky and M. Yust p754
High-power aging test on 1·3 μm DC-PBH lasers with reflective coated mirror. S. Murata, M. Kitamura, M. Yamaguchi, I. Mito and K. Kobayashi p1084
High-power single-longitudinal-mode operation of 1·3 μm DFB-DC-PBH LD. M. Kitamura, M. Seki, M. Yamaguchi, I. Mito, Ke. Kobayashi, Ko. Kobayashi and T. Matsuoka p840
High-quality 1·3 μm GaInAsP/InP BH-DFB lasers with first-order gratings. H. Okuda, Y. Hirayama, J. Kinoshita, H. Furuyama and Y. Uematsu p941
High-speed 1.55 μm single-longitudinal-mode ridge waveguide C^3 laser. I.P. Kaminow, J.-S. Ko, R.A. Linke and L.W. Stulz p784
Hybrid LPE/MBE-grown InGaAsP/InP DFB lasers. H. Asahi, Y. Kawamura, Y. Noguchi, T. Matsuoka and H. Nagai p507
Improved acousto-optic modulators for CO_2 heterodyne laser systems. K.F. Hulme and J.T. Pinson p254
Influence of spectral hole-burning on quaternary laser transients. M.J. Adams and M. Osiniski p627
Injection-locked 1.5 μm InGaAsP/InP lasers capable of 450 Mbit/s transmission over 106 km. H. Nishimoto, H. Kuwahara and M. Motegi p509
Laser-beam attenuation measurement using acousto-optic modulator. T. Kawakami and I. Yokoshima p653
Lasing characteristics of improved GaInAsP/InP surface emitting injection lasers. K. Iga, H. Soda, T. Terakado and S. Shimizu p457
Linewidth broadening in semiconductor lasers due to mode competition noise. I.D. Henning p935
Linewidth of a single mode in a multimode injection laser. M.J. Adams p652
Long delay time for lasing in very narrow graded barrier single-quantum-well lasers. F.C. Prince, N.B. Patel, D. Kasemset and C.S. Hong p435
Longitudinal-mode characteristics for 1.3 μm GaInAsP/InP DFB lasers just below the threshold current. H. Okuda, J. Kinoshita, Y. Hirayama and Y. Uematsu p362
Low threshold current GaAs/GaAlAs GRIN-SCH stripe lasers grown by OMVPE. M. Krakowski, P. Hirtz, R. Blondeau, S.D. Hersee, M. Baldy, B. de Cremoux and J.P. Duchemin p1082
Low threshold ridge waveguide laser at 1·55 μm. I.P. Kaminow, L.W. Stulz, J.-S. Ko, B.I. Miller, R.D. Feldman, J.C. DeWinter and M.A. Pollack p877
Measurement of spectra of and correlation between FM and AM noises in GaAlAs lasers. K. Kikuchi and T. Okoshi p812
Measurements of the semiconductor laser linewidth broadening factor. I.D. Henning and J.V. Collins p927
Microwave signal generation with injection-locked laser diodes. L. Goldberg, H.F. Taylor, J.F. Weller and D.M. Bloom p491
Mode partition noise caused by wavelength-dependent attenuation in lightwave systems. A. Tomita, D.G. Duff and N.K. Cheung p1079

Mode-guiding in bistable twin-stripe lasers. K.A. Shore p874
New approach to the manufacture of low-threshold 1.5 μm distributed feedback lasers. L.D. Westbrook, A.W. Nelson and C. Dix p423
New approach towards frequency stabilisation of linewidth-narrowed semiconductor lasers. C.J. Nielsen and J.H. Osmundsen p644
New mechanism for bistable operation of closely coupled twin stripe lasers. I.H. White and J.E. Carroll p337
One watt CW visible single-quantum-well lasers. C. Lindström, R.D. Burnham, D.R. Scifres, T.L. Paoli and W. Streifer p80
Optical bistability and nonlinear resonance in a resonant-type semiconductor laser amplifier. K. Otsuka and S. Kobayashi p262
Optical injection locking of X-band FET oscillator using coherent mixing of GaAlAs lasers. L. Goldberg, C. Rauscher, J.F. Weller and H.F. Taylor p848
Phase-locked (GaAl)As laser diode emitting 2.6 W CW from a single mirror. D.R. Scifres, C. Lindström, R.D. Burnham, W. Streifer and T.L. Paoli p169
Polarisation-dependent gain-current relationship in GaAs-AlGaAs MQW laser diodes. H. Kobayashi, H. Iwamura, T. Saku and K. Otsuka p166
Quantum mechanical explanation of spontaneous emission K-factor (Comment). J. Arnaud p688
Quaternary 1.5 μm (InGaAsP/InP) buried crescent lasers with seperate optical confinement. J.P. van derZiel, H. Temkin and R.A. Logan p113
Radiative and nonradiative recombination law in lightly doped InGaAsP lasers. D. Yevick and W. Streifer p1012
Room-temperature optically triggered bistability in twin-stripe lasers. I.H. White, J.E. Carroll and R.G. Plumb p558
Screening of long-wavelength laser at high temperature and high current levels. H. Higuchi, E. Oomura, R. Hirano, Y. Sakakibara, H. Namizaki, W. Susaki and K. Fujikawa p976
Semiconductor laser linewidth broadening due to 1/*f* carrier noise. M.J. O'Mahony and I.D. Henning p1000
Semiconductor laser linewidth in optical feedback configurations. E. Patzak, A. Sugimura, S. Saito, T. Mukai and H. Olesen p1026
Semiconductor light sources with capabilities of electronic beam-scanning. I. Suemune, Y. Kan and M. Yamanishi p1002
Short-cavity single-frequency InGaAsP buried-heterostructure lasers. T.P. Lee, C.A. Burrus, R.A. Linke and R.J. Nelson p82
Short-coupled-cavity(SCC) InGaAsP injection lasers for CW and high-speed single-longitudinal-mode operation. Chinlon Lin, C.A. Burrus, R.A. Linke, I.P. Kaminow, J.S. Ko, A.G. Dentai, R.A. Logan and B.I. Miller p561
Single-longitudinal-mode operation of injection laser coupled to a GRINROD external cavity. K.Y. Liou p750
Spectral linewidth reduction in semiconductor lasers by an external cavity with weak optical feedback. E. Patzak, H. Olesen, A. Sugimura, S. Saito and T. Mukai p938
Stable single-longitudinal-mode operation under high-speed direction modulation in cleaved-coupled-cavity GaInAsP semiconductor lasers. W.T. Tsang, N.A. Olsson and R.A. Logan p488
Stress tests on 1.3 μm buried-heterostructure laser diode. T. Ikegami, K. Takahei, M. Fukuda and K. Kuroiwa p282
Suppression of intensity fluctuation of a longitudinal mode in directly modulated GaInAsP/InP dynamic single-mode. F. Koyama, T. Tanbun-Ek, S. Arai, S. Wang, Y. Suematsu and K. Furuya p325
Temperature characteristics of wavelength tuning in separately pumped integrated-etalon-interference lasers. A. Antreasyan and S. Wang p876
Theory of spontaneous emission in gain-guided laser amplifiers. J. Arnaud p798
Thermally accelerated degradation of 1.3 μm BH lasers. Y. Nakano, M. Fukuda, H. Sudo, O. Fujita and G. Iwane p567
Total radiant measurement of laser diode by a calorimetric method. T. Inoue and K. Yamamura p320
Tuning characteristics of optical amplification in 1.5 μm InGaAsP/InP lasers. H. Kuwahara, T. Chikama and T. Nakagami p295
Very high CW output power and power conversion efficiency from current-confined CDH-LOC diode lasers. D. Botez, J.C. Connolly, M. Ettenberg and D.B. Gilbert p882
Wavelength tuning of GaInAsP/InP integrated laser with butt-jointed built-in distributed Bragg reflector. Y. Tohmori, Y. Suematsu, H. Tsushima and S. Arai p656
Wideband frequency-shift keying with a spectrally bistable cleaved coupled cavity semiconductor laser. N.A. Olsson and W.T. Tsang p808

LIFE TESTING

High-power aging test on 1·3 μm DC-PBH lasers with reflective coated mirror. S. Murata, M. Kitamura, M. Yamaguchi, I. Mito and K. Kobayashi p1084

LIGHT SOURCES

Semiconductor light sources with capabilities of electronic beam-scanning. I. Suemune, Y. Kan and M. Yamanishi p1002

LIGHT-EMITTING DIODES

500 Mbit/s transmission experiment using 1·3 μm wavelength InGaAsP/InP high-speed surface-emitting DH LEDs. A. Suzuki, H. Nomura and K. Minemura p963
560 Mbit/s transmission experiment using 1·3 μm InGaAsP/InP LED. H. Grothe, G. Müller, W. Harth and W. Proebster p909
$Ga_{0.47}In_{0.53}As/Al_{0.48}In_{0.52}As$ multiquantum-well LEDs emitting at 1.6 μm. K. Alavi, T.P. Pearsall, S.R. Forrest and A.Y. Cho p227

LINEAR SYSTEMS

Linear system reduction by continued-fraction expansion about s = 0 and s = a alternately. T.N. Lucas p244
Optimisation in linear system reduction. Sau-Man Yang and Rein Luus p635

LIQUID CRYSTALS

Amorphous-silicon FET array for LCD panel. K. Katoh, M. Yasui, S. Kuniyasu and H. Watanabe p506

LIQUID-PHASE EPITAXY

$In_{0.53}Ga_{0.47}As$ liquid phase epitaxy on (100)-InP substrates at low growth temperatures. H. Eisele, W. Körber and K.W. Benz p1035

LOGIC AND LOGIC DESIGN

CMOS logic circuit optimum design for radiation tolerance. H. Hatano and M. Shibuya p977
Canonical extremal vertices of a switching function and its dual. A.K. Sarje p603
Computer simulation of an oxide walled emitter STL gate. D.J. Roulston and M. Depey p21
Experimental realisation of a full adder by substrate fed threshold logic structure. C.H. Han and C.K. Kim p613
Gigabit logic bipolar technology: advanced super self-aligned process technology. T. Sakai, S. Konaka, Y. Kobayashi, M. Suzuki and Y. Kawai p283
High-speed GaAs SCFL monolithic integrated decision circuit for Gbit/s optical repeaters. N. Ohta and T. Takada p983
Parameter spectrum in spectral multiple-valued logic design. Zhang Gongli p199
Sub-10 ps high-gain direct coupled Josephson logic gate. K. Hohkawa, Y. Tazo, K. Nagata and A. Ishida p291

LOGIC CIRCUITS

CMOS logic circuit optimum design for radiation tolerance. H. Hatano and M. Shibuya p977
Hardware method of synchronising processes without using a clock. D.M. Taub p772
High-speed GaAs SCFL monolithic integrated decision circuit for Gbit/s optical repeaters. N. Ohta and T. Takada p983

LOSSES

ESR study on loss increase of 500°C heat-treated Ge-doped optical fibres. M. Nakahara, Y. Ohmori and H. Itoh p1004
Infra-red loss spectrum of hydrogen molecules in a silica fibre. K. Noguchi, Y. Murakami and K. Ishihara p1045
Loss increase in silicone-coated fibres with heat treatment. Y. Ohmori, H. Itoh, M. Nakahara and N. Inagaki p1006
Microbending loss in monomode fibres: solution of Petermann's auxiliary function. J.V. Wright p1067
TE_{11} modes in straight and curved circular waveguide with 'deformed' cross-section. F. Jecko, N. Penaud and A. Papiernik p382

MAGNETOSTATIC WAVES

4–20 GHz magnetostatic-wave delay-line oscillator. W. Ishak p930
Broadband terminations for magnetostatic surface waves. J. Krug and P. Edenhofer p971
Linearly dispersive time-delay control of magnetostatic surface wave by variable ground-plane spacing. KokWai Chang, J.M. Owens and R.L. Carter p546

MATRIX ALGEBRA

Dispersion characteristics and energy configurations of a microstrip line with tuning septums laid on a lossy material. P. Pribetich, P. Kennis and S. Toutain p242
Systolic array for recursive least-squares minimisation. J.G. McWhirter p729

MEASUREMENT

1.52 μm PSK heterodyne experiment featuring an external cavity diode laser local oscillator. R. Wyatt, T.G. Hodgkinson and D.W. Smith p550
High-precision measurements on a compact antenna test range. P.A. Beeckman p769
Hydraulic waveguide flange clamp for precision measurements. R.H. Johnson and D. Harvey p730
Integrated-circuit test structure which uses a vernier to electrically measure mask misalignment. B.M.M. Henderson, A.M. Gundlach and A.J. Walton p868
Measurement of small optically pulse-modulated reflection coefficients. W. Platte and W. Renz p625
Measuring method of equivalent series capacitance and negative resistance of crystal-oscillator circuits. M. Toki and Y. Tsuzuki p959
Nondestructive film thickness measurement on industrial diamond. R.D. Weglein e74
Reduction of preamplifier noise induced measurement errors in radiometers. M. Spaude and B. Schiek p563

MEMORIES

Method to sequentially address a large memory, suitable for LSI implementation. R. Sundblad p499
Principles of a three-dimensional molecular electronic memory. E.G. Wilson p237
Use of a ^{252}Cf source in cosmic ray simulation studies on CMOS memories. T.K. Sanderson, D. Mapper, J.H. Stephen and J. Farren p373

METAL-OXIDE-SEMICONDUCTOR STRUCTURES AND DEVICES

PMOS transistors fabricated in large-area laser-crystallised Si on silica. D. Herbst, M.A. Bösch, R.A. Lemons, S.K. Tewksbury and T.R. Harrison p12

MICROPROCESSORS AND MICROPROCESSOR APPLICATIONS

Design of recursive filters to simulate clutter for the evaluation of radar MTI processors. D.C. Cooper and P. Rogers p47

MICROSTRIP

Accuracy of design data for microstrip of unequal widths in an inhomogeneous medium. C.E. Smith p575
Broadband microstrip directional coupler. N.V. Nair and A.K. Mallick p809
Contribution to the understanding of pattern coverage of an open-circuited microstrip wraparound antenna acting at half-wavelength resonance. G. Dubost p505
Coupled microstrip parallel-gap model for improved filter and coupler design. M. Kirschning, R.H. Jansen and N.H.L. Koster p377
Cryogenic performance of microstrip substrates. S. Withington p887
Dual frequency microstrip antenna. Ramesh Garg and K.V.S. Rao p357
Efficient analysis for infinite microstrip dipole arrays. S.M. Wright and Y.T. Lo p1043
Far field radiated by short-circuited microstrip antenna acting at a quarter-wavelength resonance. G. Dubost p737
Low-cost integrated RF six-port. C.M. Potter and C.M. Snowden p815
Low-insertion-loss, temparature-compensated dielectric filters for microwave integrated circuits. G.B. Morgan and K.W. Davidson p545
New flowgraph mode and calibration procedure for S-parameter measurements of devices mounted in microstrip fixture. Shen-You Wang and Shou-Lion Zouh p171
Three-line microstrip directional coupler with dielectric overlay. K. Shibata, H. Yanagisawa and Y. Ishihata p911

MICROWAVE AMPLIFIERS

Predicted large-signal performance improvement by active compensation in microwave impatt amplifiers. A. Riris and C.S. Aitchison p1090

MICROWAVE CIRCUITS AND SYSTEMS

Accuracy of design data for microstrip of unequal widths in an inhomogeneous medium. C.E. Smith p575
Coupled microstrip parallel-gap model for improved filter and coupler design. M. Kirschning, R.H. Jansen and N.H.L. Koster p377
Exact calculations of scattering parameters of a step slot width discontinuity in a unilateral fin-line. M. Helard, J. Citerne, O. Picon and V. FouadHanna p537
Extended calibration aid for six-port network analysers. C.M. Potter and C.M. Snowden p787
High-efficiency Q-to-W-band MIC frequency doubler. R.S. Tahim, G.M. Hayashibara and K. Chang p219
Improved agile notch adaptive equaliser. J.K. Chamberlain and A.J. Price p785
Linearly dispersive time-delay control of magnetostatic surface wave by variable ground-plane spacing. Kok Wai Chang, J.M. Owens and R.L. Carter p546
Long-term precipitation rate statistics for north-east of Spain. M. Puigcerver, S. Alonso, J. Lorente and E. Vilar p129
Low-cost integrated RF six-port. C.M. Potter and C.M. Snowden p815
Low-insertion-loss, temparature-compensated dielectric filters for microwave integrated circuits. G.B. Morgan and K.W. Davidson p545
Modified numerical method for solving the nonlinear mixer pumping problem. B. Schüppert p50
Relevance of complex nomalisation in precision reflectometry. D. Woods p596
Resistance value and field distribution of rectangular anisotropic resistive region. H. Shibata and R. Terakado p518
The case for using a matched load standard for six-port calibration. P.I. Somlo p979
Topology-finite-element method for solving electromagnetic field problems. Song Guoxiang and Shi Huli p572
Ultra-wideband quadrature coupler. G. Kemp, J. Hobdell and J.W. Biggin p197

MICROWAVE DEVICES AND COMPONENTS

230-271 GHz cryogenic radiometer. B.N. Ellison and D.R. Vizard p586
29 GHz E-plane biphase modulator. W. Thorpe and J.D. Gilliland p107
Analysis of coupled asymmetric microstrip lines on a ferrite substrate. B. Janiczak and M. Kitliński p779
Analysis of quasicyclic ferrite junction by point-matching technique. J. Mazur p140
Behaviour of guided modes in systems of parallelly located transmission lines on dielectric substrates. B. Janiczak p778
Broadband microstrip directional coupler. N.V. Nair and A.K. Mallick p809
Broadband six-port reflectometer junction. E.J. Griffin, G.J. Slack and L.D. Hill p921
Broadband terminations for magnetostatic surface waves. J. Krug and P. Edenhofer p971
Cryogenic performance of microstrip substrates. S. Withington p887
Desktop computer appraisal of potential slow-wave propagation characteristics for Schottky coplanar lines. C. Seguinot, P. Kennis and P. Pribetich p1065
Dispersion characteristics and energy configurations of a microstrip line with tuning septums laid on a lossy material. P. Pribetich, P. Kennis and S. Toutain p242
Dispersion characteristics of asymmetric coupled slot lines on dielectric substrates. M. Kitlinski and B. Janiczak p91
Frequency-selective combline directional couplers designed as novel filters and multiplexers. B.A. Herscher and J.E. Carroll p691
Fully integrated W-band microstrip oscillator. D.C. Smith and T.J. Simmons p222
High-performance millimetre-wave mixer diodes fabricated using a deep mesa etch approach. J.L. Heaton, W. Fabian, F. Spooner and E.H. Kraemer p749
Integration decrement method for measuring Q of microwave resonators. I. Kneppo p496
New flowgraph mode and calibration procedure for S-parameter measurements of devices mounted in microstrip fixture. Shen-You Wang and Shou-Lion Zouh p171
New multilayered slot-line structures with high nonreciprocity. G. Böck p966
New properties of double-layer coupled slot lines configuration. B. Janiczak and M. Kitliński p846
Performance of a cryogenic 3 mm Schottky-mixer receiver on the Metsähovi 14 m radio telescope. A. Räisänen, A. Lehto, M. Tiuri and J. Lamb p892
Practical low-noise quasiparticle receiver for 80-100 GHz. R. Blundell, K.H. Gundlach and E.J. Blum p498
Predicted large-signal performance improvement by active compensation in microwave impatt amplifiers. A. Riris and C.S. Aitchison p1090
Quarter-micron gate length microwave high electron mobility transistor. P.C. Chao, T. Yu, P.M. Smith, S. Wanuga, J.C.M. Hwang, W.H. Perkins, H. Lee, L.F. Eastman and E.D. Wolf p894
Step response of lossless parabolic transmission line. H. Curtins, J.J. Max and A.V. Shah p755
Three-line microstrip directional coupler with dielectric overlay. K. Shibata, H. Yanagisawa and Y. Ishihata p911
Ultrafast GaAs microwave PIN diode. R. Tayrani and R.W. Glew p479
Wave-theoretical analysis of signal propagation on FET electrodes. W. Heinrich and H.L. Hartnagel p65
Waveguide-bandwidth millimetric mixer with IF to 18 GHz. P.M. Ballard p46

MICROWAVE LINKS

Theoretical model for calculating rain-induced crosspolarisation. F. Moupfouma p467

MICROWAVE MEASUREMENT

Cryogenic performance of microstrip substrates. S. Withington p887
Hydraulic waveguide flange clamp for precision measurements. R.H. Johnson and D. Harvey p730

MICROWAVES

Three-dimensional higher-order mode analysis of transition from waveguide to shielded dielectric image line. J. Strube and F. Arndt p306

MIXERS

High-performance millimetre-wave mixer diodes fabricated using a deep mesa etch approach. J.L. Heaton, W. Fabian, F. Spooner and E.H. Kraemer p749
Waveguide-bandwidth millimetric mixer with IF to 18 GHz. P.M. Ballard p46

MOBILE RADIO SYSTEMS

Mobile radio propagation in Auckland at 465 MHz. G.B. Rowe, A.G. Williamson and B. Egan p207
Mobile radio propagation in Auckland at 76 MHz. G.B. Rowe, A.G. Williamson and B. Egan p1064
Performance of FH-MFSK cellular mobile radio in the presence of nonsynchronous users. R. Agusti-Comes, F. Casadevall-Palacio and G. Junyent-Giralt p1077
Variability of mobile radio path loss in Auckland at 465 MHz. G.B. Rowe, A.G. Williamson and B. Egan p588

MODEL ANALYSIS

Mode analysis of optical fibres using computer-generated matched filters. H.O. Bartelt, A.W. Lohmann, W. Freude and G.K. Grau p247

MODELLING

Accurate method for analysis of a packet speech multiplexer. R.C.F. Tucker p536
Analysis of buffer behaviour for an integrated voice-data system. H. Bruneel p72
Analytic transformation of the generation-recombination centres in the transmission-line equivalent-circuit model of a semiconductor. C.Y. Kwok p947
Application of modified Ebers-Moll model to nonlinear distortion analysis of transistor amplifiers. H. Kuntman p126
Balanced minimal realisation of SISO systems. C.P. Therapos p424
Buffers with stochastic output interruptions. H.L. Bruneel p735
Coupled microstrip parallel-gap model for improved filter and coupler design. M. Kirschning, R.H. Jansen and N.H.L. Koster p377
Efficient algorithm for reduction by continued-fraction expansion about $s = 0$ and $s = a$. T.N. Lucas p991
Improved Padé approximants using stability equation method. J. Pal p426
Linear system reduction by continued-fraction expansion about s = 0 and s = a alternately. T.N. Lucas p244
Modifications to MOS transistor model CASMOS for increased accuracy of DC simulations of heavily channel-doped n-MOS devices. M.P. Brassington and C.N. Duckworth p447
New technique for semiconductor device modelling. P.K. Goswami and J.E. Sitch p1087
Predicting the performance of queuing networks with dynamic job routing. I.V. Tzavaras p899
Quasi-two-dimensional analytical solution of Poisson equation in arbitrarily doped short-channel MOSFET. T. Skotnicki p797
S-parameter model of dual-gate GaAs MESFET. H. Ashoka and R.S. Tucker p39
Simple model order reduction by truncation with performance verification by fast digital simulation. A.S. Morris p343
Simple power spectrum of microbendings in single-mode fibres. P. Danielsen p318
Stability equation method to reduce the order of fast oscillating systems. C.P. Therapos p183
Statistical identification of difference equation representations for nonlinear systems. M. Korenberg p175

MODULATION

Cochannel and intersymbol interferences in QAM system. H.T. Huynh and P. Fortier p764
Distance measure for simplified receivers. A. Svensson, C.-E. Sundberg and T. Aulin p953
Generation of single-longitudinal-mode gigabit-rate optical pulses from semiconductor lasers through harmonic-frequency sinusoidal modulation. H. Kawaguchi and K. Otsuka p668
High speed infra-red modulator with multilayered pn-junctions. S. Yamada, T. Urisu and Y. Mizushima p940
Runlength-limited code with small error propagation. K.A. Schouhamer Immink p323

MODULATORS

29 GHz E-plane biphase modulator. W. Thorpe and J.D. Gilliland p107

MULTIPLEXERS AND MULTIPLEXING

Asynchronous multiplexing for an optical-fibre local-area network. P.A. Davies and A.A. Shaar p390
Long-wavelength single-mode WDM for CATV applications. G.F. Lipscomb, C.K. Asawa and J.W. Downs p277

MULTIVARIABLE SYSTEMS

Frequency-domain identification of transmission-zero locations of linear multivariable plants. B. Porter and A.H. Jones p258

NETWORKS AND NETWORK THEORY

Calculating transfer function and its first- and second-order sensitivities using one network analysis. P.H. di Mambro p421
Comment and reply on Calculating transfer function and its first- and second-order sensitivities using one network analysis. J.K. Fidler and P.H. di Mambro p914
High-performance single-mode AlGaAs Gaussian channel substrate planar laser diodes. A.D. Ceruzzi p1
Simplified calibration equations for computer-corrected network analyser using matched-impedance normalisation. O. Tenen p314
Syndrome-testable internally unate combinational networks. E. Eris and D.M. Miller p637

NOISE

Measurement of spectra of and correlation between FM and AM noises in GaAlAs lasers. K. Kikuchi and T. Okoshi p812

Noise reduction in ADPCM AQJ systems using quantiser correction at the receiver. F.S. Yeoh and C.S. Xydeas p420
Noise-cancelling switched-capacitor (SC) filtering technique. K.K.K. Lam and M.A. Copeland p810
Signal-to-noise performance of the pulse-interval and width-modulation system. S.D. Marougi and K.H. Sayhood p528

NONLINEAR SYSTEMS

Statistical identification of difference equation representations for nonlinear systems. M. Korenberg p175

NUMBER THEORY

Fast digital convolution using p-adic transforms. N.M. Nasrabadi and R.A. King p266

NUMERICAL METHODS AND NUMBER THEORY

Multiquartic approximation in single-mode optical fibres. G. Coppa and P. Di Vita p430

OPERATIONAL AMPLIFIERS

CMRR analysis of instrumentation amplifiers. J. Szynowski p547
Substrate bias effect for C-MOS operational amplifier using SIMOX technology. M. Akiya and T. Kimura p36
Tuning characteristics of optical amplification in 1.5 μm InGaAsP/InP lasers. H. Kuwahara, T. Chikama and T. Nakagami p295

OPTICAL COMMUNICATION

1.3 μm/1.5 μm bidirectional WDM optical-fibre transmission system experiment at 144 Mbit/s. R.J.S. Bates, J.D. Spalink, S.J. Butterfield, J. Lipson, C.A. Burrus, T.P. Lee and R.A. Logan p458
500 Mbit/s transmission experiment using 1·3 μm wavelength InGaAsP/InP high-speed surface-emitting DH LEDs. A. Suzuki, H. Nomura and K. Minemura p963
560 Mbit/s transmission experiment using 1·3 μm InGaAsP/InP LED. H. Grothe, G. Muller, W. Harth and W. Proebster p909
81 km submarine optical repeater trial. G. Bourret, A. Doll, G. Bassier, G. Raffin and M. Jurczyszyn p1053
Analogue optical link for multichannel frequency-modulated television transmission. T.T. Tjhung, T.K. Lim and F.V.C. Mendis p106
Analysis of dicoding in optical-fibre communication systems. R.C. Hooper p304
Bandwidth limits of nonlinear (Soliton) optical communication systems. K.J. Blow and N.J. Doran p429
Bit-error rate of PSK heterodyne optical communication system and its degradation due to spectral spread of transmitter and local oscillator. K. Kikuchi, T. Okoshi, M. Nagamatsu and N. Henmi p417
Characteristics of wire-space-type submarine optical cable. Y. Kimura, Y. Murakami, K. Noguchi and K. Ishihara p595
Deformation-free overgrowth of InGaAsP DFB corrugations. A.W. Nelson, L.D. Westbrook and J.S. Evans p34
Depolarised broadband source. R.P. Moeller and W.K. Burns p187
Effects of 140 Mbit/s operation on degradation of GaAlAs DH lasers. M.J. Robertson p88
Emission frequency stability in single-mode-fibre optical feedback controlled semiconductor lasers. F. Favre and D. le Guen p663
Enhanced bandgap resonant nonlinear susceptibility in quantum-well heterostructures. M.G. Burt p132
High-speed pulse-train generation using single-mode-fibre recirculating delay lines. S.A. Newton, R.S. Howland, K.P. Jackson and H.J. Shaw p756
Long-wavelength single-mode WDM for CATV applications. G.F. Lipscomb, C.K. Asawa and J.W. Downs p277
Low-dispersion 1·55 μm optical system operating at 320 Mbaud over 103·5 km. A.F. Mitchell, M.J. O'Mahony, I.W. Marshall and B.J. Ainslie p1028
Measurement of very-high-speed photodetectors with picosecond InGaAsP film lasers. J.M. Wiesenfeld, A.R. Chraplyvy, J. Stone and C.A. Burrus p22
Novel collision detection technique for CSMA/CD based fibre-optic local area networks. S. Moustakas and H.H. Witte p592
Numerical investigation of soliton interaction. B. Hermansson and D. Yevick p570
Optical phase-locked loop using semiconductor laser diodes. R.C. Steele p69
Optimum choice of Si FET or GaAs FET as first-stage active device for very low-noise optical receivers with medium bandwidths. W. Schmidt auf Altenstadt p937
Optoelectronic 10 Gbit/s code generation by a picosecond photoconductive device. G. Veith, E.O. Göbel and J. Kuhl p1072
PIN-bipolar optical receiver using a high-frequency high-beta transistor. A.F. Mitchell, M.J. O'Mahony and B.A. Boxall p445
PSK homodyne receiver sensitivity measurements at 1.5 μm. D.J. Malyon, T.G. Hodgkinson, D.W. Smith and R.C. Booth p144
Performance degradation due to stimulated Raman scattering in wavelength-division-multiplexed optical-fibre systems. A.R. Chraplyvy and P.S. Henry p641
Polarisation-maintaining single-mode-fibre resonator. E.-J. Bachus, R.-P. Braun and B. Strebel p1027
Polarisation-mode dispersion as a bandwidth-limiting factor in a long-haul single-mode optical-transmission system. K. Suzuki, N. Shibata and Y. Ishida p689
Prime sequences: quasi-optimal sequences for OR channel code division multiplexing. A.A. Shaar and P.A. Davies p888
Reduction of turn-on delay in laser diode optical switch. M. Ikeda p53
Single-mode semiconductor laser optically pumped by an injection laser. T.C. Damen, M.A. Duguay, B.I. Miller and C. Lin p3
Spontaneous Brillouin noise in long-distance high-bandwidth optical-fibre transmission. J. Stone and A.R. Chraplyvy p275
Transmission loss increase in optical fibres due to hydrogen permeation. K. Mochizuki, Y. Namihira and H. Yamamoto p743

OPTICAL CONNECTORS & COUPLERS

Length dependence of optical fibre bandwidth. M. Eriksrud, A.R. Mickelson and N. Ryen p994

OPTICAL FIBRES

1 Gbit/s transmission experiment over 101 km of single-mode fibre using a 1.55 μm ridge guide C^3 laser. R.A. Linke, B.L. Kasper, J.S. Ko, I.P. Kaminow and R.S. Vodhanel p775
1.3 μm/1.5 μm bidirectional WDM optical-fibre transmission system experiment at 144 Mbit/s. R.J.S. Bates, J.D. Spalink, S.J. Butterfield, J. Lipson, C.A. Burrus, T.P. Lee and R.A. Logan p458
10 Ghz active mode-locking of a 1.3 μm ridge-waveguide laser in an optical-fibre cavity. R.S. Tucker, G. Eisenstein and I.P. Kaminow p552
8 km-long polarisation-maintaining fibre with highly stable polarisation state. Y. Sasaki, Y. Hosaka, K. Takada and J. Noda p792
Accurate method for characterising single-mode fibres: theory and experiment. A.K. Ghatak, R. Srivastava, I.F. Faria, K. Thyagarajan and R. Tiwari p97
Acousto-optic frequency shifter for single-mode fibres. K. Nosu, S.C. Rashleigh, H.F. Taylor and J.F. Weller p816
Acousto-optic phase modulator for single-mode fibres. K. Nosu, H.F. Raylor, S.C. Rashleigh and J.F. Weller p605
All-fibre 'Michelson' thermometer. M. Corke, A.D. Kersey, D.A. Jackson and J.D.C. Jones p471
Asynchronous multiplexing for an optical-fibre local-area network. P.A. Davies and A.A. Shaar p390
Attenuation changes in optical fibres due to hydrogen. M. Fox and S.J. Stannard-Powell p916
Attenuation measurements on single pieces of fibre and extrapolation over longer distances. G. Cancellieri e355
Bend behaviour of polarising optical fibres. M.P. Varnham, D.N. Payne, R.D. Birch and E.J. Tarbox p679
Calculated and measured spot size of equivalent Gaussian field in single-mode optical fibres. E. Nicolaisen and P. Danielsen p27
Characterisation of single-mode fibres by near-field measurement. G. Coppa, P. DiVita and U. Rossi p293
Characteristics of wire-space-type submarine optical cable. Y. Kimura, Y. Murakami, K. Noguchi and K. Ishihara p595
Chirped picosecond injection laser pulse transmission in single-mode fibres in the minimum chromatic dispersion region. C. Lin and A. Tomita p837
Coherent optical-fibre sensors with modulated laser sources. I.P. Giles, D. Uttam, B. Culshaw and D.E.N. Davies p14
Comparing the chromatic dispersions of two single-mode silica fibres with pure F and pure GeO_2 doping, respectively. T. Müller and W.E. Heinlein p692
Constraints for fundamental-mode spot size for broadband dispersion-compensated single-mode fibres. K. Petermann p712
Depolarised broadband source. R.P. Moeller and W.K. Burns p187
Derivation of fundamental-mode electric field and modal properties of single-mode fibres from variable-aperture launch method. F. Alard and P. Sansonetti p313
Detection of DC and low-frequency AC magnetic fields using an all single-mode fibre magnetometer. A.D. Kersey, M. Corke, D.A. Jackson and J.D.C. Jones p469
Determination of modal dispersion in monomode fibres from wavelength dependence of the mode spot size. J.P. Pocholle, J. Raffy, J. Auge and M. Papuchon p1093
ESR study on loss increase of 500°C heat-treated Ge-doped optical fibres. M. Nakahara, Y. Ohmori and H. Itoh p1004
Effect of nuclear radiation on Selfoc microlenses. E.J. Friebele p972
Effects of hydrogen diffusion on optical fibre loss increase. Y. Namihira, K. Mochizuki, M. Kuwazuru and Y. Iwamoto p1034
Effects of loss on equivalent-step-index fibre determination. C. Pask and F. Rühl p643
Efficient backward and forward pumping CW Raman amplification for InGaAsP laser light in silica fibres. Y. Aoki, S. Kishida, H. Honmou, K. Washio and M. Sugimoto p620
Efficient coupling of laser diodes to tapered monomode fibres with high-index end. G.D. Khoe, J. Poulissen and H.M. de Vrieze p205
Elastic profile measurements of optical fibres via reflections acoustic microscopy. C.K. Jen, G.W. Farnell, R.D. Kinsella and J. Bussière p922
Enhancement of birefringence in polarisation-maintaining fibres by thermal annealling. A. Ourmazd, R.D. Birch, M.P. Varnham, D.N. Payne and E.J. Tarbox p143
Evanescent amplification in a single-mode optical fibre. W.V. Sorin, K.P. Jackson and H.J. Shaw p820
Evolution of power distribution in graded-index fibres. S. Kawakami and H. Tanji p100
Fabrication of SiO_2-TiO_2 glass planar optical waveguides by flame hydrolysis deposition. M. Kawachi, M. Yasu and T. Edahiro p583
Fabrication of a stress-guiding optical fibre. R.D. Birch, M.P. Varnham, D.N. Payne and K. Okamoto p866
Fabrication of polarisation-maintaining [3 x 3] single-mode-fibre couplers. M. Kawachi p781
Fabrication of long-length, high-strength single-mode silica fibres. J.G. Lamb, A.P. Harrison and T.M. McHugh p533
Fibre-optic digital transmission experiment with heterodyne detection. E.J. Bachus, F. Böhnke, W. Eutin and B. Strebel p671
Finite cladding effects in W-fibres: a new interpretation of leakage losses. P.L. Francois p173
Fitting of a weighted Gaussian lowpass filter to the transfer function of graded-index fibres to reduce bandwidth ambiguities. D. Schicketanz p650
GaInAs/InP large bandwidth (>2 GHz) PIN detectors. T.P. Pearsall, R.A. Logan and C.G. Bethea p611
Gaussian pulse propagation in nonlinear optical fibre. P.L. Chu and C. Desem p956
Heterodyne OTDR at 0.82μm. E. Bossdtker, B. Tromborg, J. Mark and C.J. Nielsen p361
High-gain optical amplification of laser diode signal by Raman scattering in single-mode fibres. E. Desurvire, M. Papuchon, J.P. Pocholle, J. Raffy and D.B. Ostrowsky p751
High-strength silica fibres in a long length coated at a speed of 5 m/s. U.C. Paek and C.M. Schroeder p955
Hydroxyl concentration profile in low-loss graded-index fibres. W. Heitmann and M. Wittmann p564
Increased attenuation in optical fibres caused by diffusion of molecular hydrogen at room temperature. K.J. Beales, D.M. Cooper and J.D. Rush p917
Infra-red loss spectrum of hydrogen molecules in a silica fibre. K. Noguchi, Y. Murakami and K. Ishihara p1045
Infra-red optical loss increase for silica fibre in cable filled with water. N. Uesugi, Y. Murakami, C. Tanaka, Y. Ishida, Y. Mitsunaga, Y. Negishi and N. Uchida p762
Joint-loss dependance on mismatch parameters in graded-index optical fibres. G. Coppa, P. Di Vita and U. Rossi p654
Joint characteristics between polarisation-maintaining single-mode fibres. H. Tokiwa, K. Mochizuki and H. Wakabayashi p485
Length dependence of optical fibre bandwidth. M. Eriksrud, A.R. Mickelson and N. Ryen p994
Liquid-core optical fibre for voltage measurement using Kerr effect. M. Kuribara and Y. Takeda p133
Loss increase in silicone-coated fibres with heat treatment. Y. Ohmori, H. Itoh, M. Nakahara and N. Inagaki p1006

Low-OH MCVD fibres without a barrier layer using OH → OD-exchanged substrate tubes. Hen-Tai Shang, J. Stone and C.A. Burrus p95
Low-dispersion 1·55 μm optical system operating at 320 Mbaud over 103·5 km. A.F. Mitchell, M.J. O'Mahony, I.W. Marshall and B.J. Ainslie p1028
Low-loss single-mode-fibre splicing technique using core direct monitoring. O. Kawata, K. Hoshino and K. Ishihara p1048
Material dispersion characteristics of optical fibres prepared by the PCVD process. P. Bachmann, P. Geittner, H. Hübner, D. Leers and M. Lennartz p765
Microbending loss in monomode fibres: solution of Petermann's auxiliary function. J.V. Wright p1067
Microwave-frequency response of an optical-fibre delay-line filter. S.A. Newton and P.S. Cross p480
Middle IR As-S and As-Se glass fibres with optical losses lower than 1 dB/m. A.V. Vasiliev, E.M. Dianov, V.G. Plotnichenko, V.K. Sysoev, A.M. Bagrov, P.I. Baikalov, G.G. Devyatykh, I.V. Scripachev and M.F. Churbanov p589
Mode analysis of optical fibres using computer-generated matched filters. H.O. Bartelt, A.W. Lohmann, W. Freude and G.K. Grau p247
Monomode fibre fusion splicing with CO_2 laser. L. Rivoallan, J.Y. Guilloux and P. Lamouler p54
Multiquartic approximation in single-mode optical fibres. G. Coppa and P. Di Vita p430
Near-field measurements in monomode fibres : determination of chromatic dispersion. G. Coppa, P. Di Vita, M. Potenza and U. Rossi p731
Near-field scanning technique for profiling single-mode fibres. D.H. Irving p190
New absorption bands in pure and F-doped silica optical fibres. W. Heitmann, H.U. Bonewitz and A. Mühlich p616
New and simple method for selective mode group excitation in graded-index optical fibres. A.K. Agarwal, G. Evers and U. Unrau p694
New measurement method for polarisation dispersion in single-mode fibres employing frequency-modulated optical signal. Y. Yamabayashi and M. Saruwatari p239
New method for equivalent-step-index fibre determination. C. Pask and F. Rühl p658
New simple method for measuring the mode spot size in monomode fibres. J.P. Pocholle and J. Auge p191
New single-mode single-polarisation optical fibre. A.W. Snyder and F. Rühl p185
Novel component to approximate steady-state mode power distribution in graded-index fibres. A.K. Agarwal and U. Unrau p57
Novel polarisation phenomena on anisotropic multimoded fibres. A.W. Snyder and F. Rühl p401
Novel technique for measurement of wavelength of zero relative delay between modes of a dual-mode optical fibre. J.L. McMillan p240
Optical fibre jacketed with high-modulus low-linear-expansion-coefficient polymer. F. Yamamoto, K. Nakagawa, Y. Shuto and S. Yamakawa p674
Optical fibres with an Al_2O_3-doped silicate core composition. J.R. Simpson and J.B. MacChesney p261
Optical-fibre unit for optical submarine cable. H. Yamamoto, Y. Namihira and Y. Niiro p125
Optimum wavelength for long-wavelength LED systems. J.V. Wright p211
Performance degradation due to stimulated Raman scattering in wavelength-division-multiplexed optical-fibre systems. A.R. Chraplyvy and P.S. Henry p641
Phase-shift technique for the measurement of chromatic dispersion in single-mode optical fibres using LEDs. B. Costa, M. Puleo and E. Vezzoni p1074
Polarimetric strain gauges using high birefringence fibre. M.P. Varnham, A.J. Barlow, D.N. Payne and K. Okamoto p699
Polarisation holding in coiled high-birefringence fibres. S.C. Rashleigh and M.J. Marrone p850
Polarisation preserving single-mode-fibre coupler. C.A. Villarruel, M. Abebe and W.K. Burns p17
Polarisation-holding directional coupler made from elliptically cored fibre having a D section. R.B. Dyott and J. Bello p601
Polarisation-preserving coupler with self-aligning birefringent fibres. W. Pleibel, R.H. Stolen and S.C. Rashleigh p825
Practical single-polarisation anisotropic fibres. A.W. Snyder and F. Rühl p687 p687
Prediction of mode dispersion in graded-index single-mode fibres. P.Y.P. Chen p880
Prediction of the ultimate performance of side-tunnel single-polarisation fibre. T. Okoshi, T. Aihara and K. Kikuchi p1080
Propagation mechanisms in quadruple-clad fibres: mode coupling, dispersion, pure bend losses. P.L. Francois p885
Radiation-hardened pure silica-core fibre optics. R.H. West and A.P. Lenham p622
Radiation-induced loss and colour-centre concentration in optical fibres. H. Yashima, H. Mitera and Y. Itoh p11
Rayleigh scattering in fluoride glass optical fibres. D.C. Tran, K.H. Levin, C.F. Fisher, M.J. Burk and G.H. SigelJun. p165
Residual nylon-jacketed fibre shrinkage caused by cooling. N. Yoshizawa, T. Yabuta and K. Noguchi p411
Residual shrinkage of UV-cured acrylate-jacketed optical fibres. N. Yoshizawa p1073
Resolution improvement in refracted near-field index measurement by a lens-shaped liquid cell. T. Müller p580
Segmented-core single-mode fibres with low loss and low dispersion. V.A. Bhagavatula, M.S. Spotz, W.F. Love and D.B. Keck p317
Simple fibre-optic sensor for detecting water penetration into optical fibre cables. A.G.W.M. de Jongh, M.B.J. Diemeer, E.S. Trommel and A.H.E. Bruels p980
Simple measurement method for polarisation modal dispersion in polarisation-maintaining fibres. K. Takada, J. Noda and Y. Sasaki p1015
Simple power spectrum of microbendings in single-mode fibres. P. Danielsen p318
Simultaneous multilevel proof-testing of high-strength silica fibre. S.P. Craig, P.L. Dunn, J.D. Rush, D.G. Smith and K.J. Beales p516
Single-mode-fibre cutoff measurements using offset splice technique : excess loss effects. J.E. Chapman and D. Wu p290
Single-polarisation operation of highly birefringent bow-tie optical fibres. M.P. Varnham, D.N. Payne, R.D. Birch and E.J. Tarbox p246
Stabilisation of single and multimode fibre-optical mocribend sensors. S.K. Yao, C.K. Asawa and G.F. Lipscomb p257
Stress and temperature effects on optical loss increase for phosphor-doped silica fibre in the long wavelength region. N. Uesugi, T. Kuwabara, M. Ohashi, Y. Ishida and N. Uchida p842
Temperature dependence of the Kerr effect in a silica optical fibre. M.C. Farries and A.J. Rogers p890
Temperature desensitisation of delay in optical fibres for sensor applications. R. Kashyap, S. Hornung, M.H. Reeve and S.A. Cassidy p1039
Temperature stability of transit time delay for a single-mode fibre in a loose tube cable. L.A. Bergman, S.T. Eng and A.R. Johnston p865
Ultimate limit of polarisation-holding in single-mode fibres. E. Brinkmeyer and W. Eickhoff p996
Ultra-long-range OTDR in single-mode fibres at 1.3 μm. M.P. Gold and A.H. Hartog p463
Use of far-field radiation pattern to characterise single-mode symmetric slab waveguides. A.C. Boucouvalas p120
g-ray irradiation effect on transmission loss for ZrF_4 based optical fibres. Y. Ohishi, S. Mitachi, S. Takahashi and T. Miyashita p830

OPTICAL MEASUREMENT

Phase-shift technique for the measurement of chromatic dispersion in single-mode optical fibres using LEDs. B. Costa, M. Puleo and E. Vezzoni p1074

OPTICAL PROPERTIES OF SUBSTANCES

High speed infra-red modulator with multilayered pn-junctions. S. Yamada, T. Urisu and Y. Mizushima p940

OPTICAL RECEIVERS

Optimum choice of Si FET or GaAs FET as first-stage active device for very low-noise optical receivers with medium bandwidths. W. Schmidt auf Altenstadt p937
PIN-bipolar optical receiver using a high-frequency high-beta transistor. A.F. Mitchell, M.J. O'Mahony and B.A. Boxall p445
PSK homodyne receiver sensitivity measurements at 1.5 μm. D.J. Malyon, T.G. Hodgkinson, D.W. Smith and R.C. Booth p144

OPTICAL SENSORS

Coherent optical-fibre sensors with modulated laser sources. I.P. Giles, D. Uttam, B. Culshaw and D.E.N. Davies p14
Reduction of temperature and vibration sensitivity of a polarimetric current sensor. J. Lizet, S. Valette and D. Langeac p578
Simple fibre-optic sensor for detecting water penetration into optical fibre cables. A.G.W.M. de Jongh, M.B.J. Diemeer, E.S. Trommel and A.H.E. Bruels p980
Temperature desensitisation of delay in optical fibres for sensor applications. R. Kashyap, S. Hornung, M.H. Reeve and S.A. Cassidy p1039

OPTICAL SWITCHING

Isolation spectra for laser diode optical switch. M. Ikeda p584
New mechanism for bistable operation of closely coupled twin stripe lasers. I.H. White and J.E. Carroll p337
Optical properties for an antireflection-coated LD optical switch. M. Ikeda p826
Optoelectronic 10 Gbit/s code generation by a picosecond photoconductive device. G. Veith, E.O. Göbel and J. Kuhl p1072

OPTICAL TRANSMISSION

Mode partition noise caused by wavelength-dependent attenuation in lightwave systems. A. Tomita, D.G. Duff and N.K. Cheung p1079
Optimum wavelength for long-wavelength LED systems. J.V. Wright p211
Polarisation-mode dispersion as a bandwidth-limiting factor in a long-haul single-mode optical-transmission system. K. Suzuki, N. Shibata and Y. Ishida p689
Spontaneous Brillouin noise in long-distance high-bandwidth optical-fibre transmission. J. Stone and A.R. Chraplyvy p275

OPTICAL WAVEGUIDE COMPONENTS

Novel mode scrambler for reducing mode dependence in multimode optical waveguides. Y. Kokubun, S. Suzuki, T. Fuse, H. Uehara, K. Iga, M. Oikawa and S. Misawa p1009

OPTICAL WAVEGUIDES

Attenuation measurements on MOCVD-grown GaAs/GaAlAs optical waveguides. R.G. Walker and R.C. Goodfellow p590
Crosstalk characteristics of lens-like Ti-$LiNbO_3$ intersecting channel waveguides. C.T. Lee p805
Electro-optic X-switch using single-mode Ti:$LiNbO_3$ channel waveguides. A. Neyer p553
Loss reduction in curved dielectric optical slab waveguide. M. Geshiro and S. Sawa p321
Novel mode scrambler for reducing mode dependence in multimode optical waveguides. Y. Kokubun, S. Suzuki, T. Fuse, H. Uehara, K. Iga, M. Oikawa and S. Misawa p1009
Proton-exchanged optical waveguides in Y-cut lithium niobate. M. Goodwin and C. Stewart p223

OPTICS

Bit-error rate of PSK heterodyne optical communication system and its degradation due to spectral spread of transmitter and local oscillator. K. Kikuchi, T. Okoshi, M. Nagamatsu and N. Henmi p417
Demodulation scheme fibre interferometric sensors employing laser frequency switching. A.D. Kersey, D.A. Jackson and M. Corke p102
Direct rotation-rate detection with a fibre-optic gyro by using digital data processing. K. Böhm, P. Marten, E. Weidel and K. Petermann p997
Efficient coupling of laser diodes to tapered monomode fibres with high-index end. G.D. Khoe, J. Poulissen and H.M. deVrieze p205
Heterodyne OTDR at 0.82μm. E. Bossdtker, B. Tromborg, J. Mark and C.J. Nielsen p361
Novel mode scrambler for reducing mode dependence in multimode optical waveguides. Y. Kokubun, S. Suzuki, T. Fuse, H. Uehara, K. Iga, M. Oikawa and S. Misawa p1009
Optical properties for an antireflection-coated LD optical switch. M. Ikeda p826
Simple method for feedback parameter determination in optical feedback controlled semiconductor lasers. Y. Bouidene, F. Favre and D. Le Guen p1017

OPTIMAL CONTROL

A priori bound for optimal stochastic control problem with multiplicative noise. E. Yaz p137
Optimum control of packet switching networks. J.M. Selga p794

OPTOELECTRONICS

100 GHz bandwidth planar GaAs Schottky photodiodes. S.Y. Wang and D.M. Bloom p554
Aging characteristic of light-modulation quartz-crystal oscillator with glass-bar-mounted plano-convex AT-cut quartz-crystal plate. S. Yamagata p795
Efficient backward and forward pumping CW Raman amplification for InGaAsP laser light in silica fibres. Y. Aoki, S. Kishida, H. Honmou, K. Washio and M. Sugimoto p620
Electro-optic X-switch using single-mode Ti:$LiNbO_3$ channel waveguides. A. Neyer p553
Electro-optic sampling with picosecond resolution. B.H. Kolner, D.M. Bloom and P.S. Cross p574
High-performance avalanche photodiode with separate absorption 'grading' and multiplication regions. J.C. Campbell, A.G. Dentai, W.S. Holden and B.L. Kasper p818
InGaAs avalanche photodiodes for 1 μm wavelength region. T. Shirai, T. Mikawa, T. Kaneda and A. Miyauchi p534
Incident wavelength dependence of pulse response in InP/InGaAsP/InGaAs avalanche photodiodes. K. Yasuda, T. Shirai, T. Mikawa, Y. Kishi and T. Kaneda p662
Integrated optical spectrum analyser using planar technology on oxidised silicon substrate. S. Valette, J. Lizet, P. Mottier, J.P. Jadot, S. Renard, A. Fournier, A.M. Grouillet, P. Gidon and H. Denis p883
Isolation spectra for laser diode optical switch. M. Ikeda p584
Lattice-matched and mismatched multiquantum-well heterostructure photodiodes for operation at 1·1 to 1·5 μm. P.K. Bhattacharya and V.K. Tripathi p924
M-type electrode planar guided-wave beam splitter. C.L. Lee, C.H. Huang and J.S. Horng p929
Measurement of small optically pulse-modulated reflection coefficients. W. Platte and W. Renz p625
Monolithic integration of InGaAsP/InP LED and transistor—a light-coupled bistable electro-optical device. H. Grothe and W. Proebster p194
Noise and responsivity of commercial p^+n Ge avalanche photodiodes. M.C. Brain p813
Optoelectronic 10 Gbit/s code generation by a picosecond photoconductive device. G. Veith, E.O. Göbel and J. Kuhl p1072
Optoelectronically pulsed slot-line antennas. R. Heidemann, Th. Pfeiffer and D. Jäger p316
Proposing a new backward solar cell. K.K. Govil p395
Temperature dependence of the Kerr effect in a silica optical fibre. M.C. Farries and A.J. Rogers p890
Wavelength-discriminating photodetector for lightwave systems. J.C. Campbell, C.A. Burrus, J.A. Copeland and A.G. Dentai p672

OSCILLATORS

4–20 GHz magnetostatic-wave delay-line oscillator. W. Ishak p930
Aging characteristic of light-modulation quartz-crystal oscillator with glass-bar-mounted plano-convex AT-cut quartz-crystal plate. S. Yamagata p795
Electronic frequency tuning of trapatt oscillators. N. Nazoa-Ruiz and C.S. Aitchison p493
Fully integrated W-band microstrip oscillator. D.C. Smith and T.J. Simmons p222
Highly-stable FET DROs using new linear dielectric resonator material. C. Tsironis and D. Hennings p741
Integrable tunable sinusoid oscillator using DVCCS. A.R. Saha, R. Nandi and S. Nandi p745

PASSIVE NETWORKS

Semi-lossy two-port and a theorem concerning RLCn networks. L.R.G. Versfeld p157

PATTERN RECOGNITION

Mixed measure error function for nonlinear mapping algorithms. Da-Kai Wang p634
Normalisation of Fourier descriptors of planar shapes. S. Prakash and F.V.D. Heyden p828

PHASE-LOCKED LOOPS

Algorithm for solving a class of phase-lock-loop equations. P. Hasan p153
Modification of phase-locked-loop performance using a sample-and-hold circuit. D.V. Thiel and WuXiao Wu p681
Optical phase-locked loop using semiconductor laser diodes. R.C. Steele p69

PHASE-SHIFT KEYING

Performance of DPSK system in impulsive atmospheric radio noise with varying impulse rates and intersymbol interference. V.K. Jain and S.N. Gupta p999

PHOTODETECTORS

1.5 GHz operation of an Al_xGa_{1-x} As/GaAs modulation-doped photoconductive detector. Y.M. Pang, C.Y. Chen and P.A. Garbinski p716
Fast photoconductive GaAs detectors made by laser stimulated MOCVD. W. Roth, H. Schumacher and H. Beneking p142
Measurement of very-high-speed photodetectors with picosecond InGaAsP film lasers. J.M. Wiesenfeld, A.R. Chraplyvy, J. Stone and C.A. Burrus p22
Wavelength-discriminating photodetector for lightwave systems. J.C. Campbell, C.A. Burrus, J.A. Copeland and A.G. Dentai p672

PHOTODIODES

GaInAs/InP large bandwidth (>2 GHz) PIN detectors. T.P. Pearsall, R.A. Logan and C.G. Bethea p611
High-speed Schottky photodiode on semi-insulating GaAs. Z. Rav-Noy, C. Harder, U. Schreter, S. Margalit and A. Yariv p753
High-speed planar InP/InGaAs avalanche photodiode fabricated by vapour phase epitaxy. H. Ando, Y. Yamauchi and N. Susa p543
PIN-bipolar optical receiver using a high-frequency high-beta transistor. A.F. Mitchell, M.J. O'Mahony and B.A. Boxall p445
Planar structure AlGaAs/GaAs PIN photodiode grown by MOCVD. M. Ito, O. Wada, S. Miura, K. Nakai and T. Sakurai p522

PHOTOELECTRIC DEVICES

1.5 GHz operation of an Al_xGa_{1-x} As/GaAs modulation-doped photoconductive detector. Y.M. Pang, C.Y. Chen and P.A. Garbinski p716
GaInAs/InP large bandwidth (>2 GHz) PIN detectors. T.P. Pearsall, R.A. Logan and C.G. Bethea p611
Integrated PINFET optical receiver with high-frequency InP-MISFET. K. Kasahara, M. Sugimoto, H. Nomura and S. Suzuki p905
Monolithic PIN/preamplifier circuit integrated on a GaAs substrate. O. Wada, H. Hamaguchi, S. Miura, M. Makiuchi, S. Yamakoshi, T. Sakurai, K. Nakai and K. Iguchi p1031
Planar structure AlGaAs/GaAs PIN photodiode grown by MOCVD. M. Ito, O. Wada, S. Miura, K. Nakai and T. Sakurai p522

PHOTOTRANSISTORS

High-gain low-noise GaAlAs-GaAs phototransistors. A. Scavennec, D. Ankri, C. Besombes, C. Courbet, J. Riou and F. Heiliot p394

PIEZOELECTRIC DEVICES AND MATERIALS

Influence of substrate conductivity on characteristics of ZnO/SiO_2-diaphragm piezoelectric resonators. K. Nakamura, H. Sasaki and H. Shimizu p521

POLARISATION

Assessment of principal planes orientation in a terrestrial link at 18 GHz during intense rainfall. D. Maggiori, P. Migliorini and A. Paraboni p617
Bend behaviour of polarising optical fibres. M.P. Varnham, D.N. Payne, R.D. Birch and E.J. Tarbox p679
Depolarised broadband source. R.P. Moeller and W.K. Burns p187
Fabrication of polarisation-maintaining [3 x 3] single-mode-fibre couplers. M. Kawachi p781
High-efficiency satallite antenna. A. Saitto, D. Patel, G. Doro and B. Trombetta p307
New measurement method for polarisation dispersion in single-mode fibres employing frequency-modulated optical signal. Y. Yamabayashi and M. Saruwatari p239
New single-mode single-polarisation optical fibre. A.W. Snyder and F. Rühl p185
Novel polarisation phenomena on anisotropic multimoded fibres. A.W. Snyder and F. Rühl p401
Polarisation preserving single-mode-fibre coupler. C.A. Villarruel, M. Abebe and W.K. Burns p17
Practical single-polarisation anisotropic fibres. A.W. Snyder and F. Rühl p687
Simple measurement method for polarisation modal dispersion in polarisation-maintaining fibres. K. Takada, J. Noda and Y. Sasaki p1015
Ultimate limit of polarisation-holding in single-mode fibres. E. Brinkmeyer and W. Eickhoff p996
Uplink depolarisation control in TV feeder link earth stations. M. Nouri p374

POWER SEMICONDUCTOR DEVICES

GaAs FET power amplifier module with high efficiency. K. Chiba and N. Kanmuri p1025

PULSE GENERATION

Temporal and spectral characteristics of rapidly gain-switched GaAs/GaAlAs buried-heterostructure lasers. G. Veith, J. Kuhl and E.O. Göbel p385

QUEUING THEORY

Analysis of buffer behaviour for an integrated voice-data system. H. Bruneel p72
Predicting the performance of queuing networks with dynamic job routing. I.V. Tzavaras p899

RADAR

Applicability of the relay correlator to radar signal processing. S. Cacopardi p722
False-alarm probabilities for a log-t detector in K-distributed clutter. A. Jakubiak p725
Fast algorithm for the exact determination of the mapped effective areas of trihedral radar reflectors. K.M. Keen p1014
New monopulse tracking radar. F.R. Connor p438
Simple formula for the RCS of a finite hollow circular cylinder. C.-C. Huang p854
Use of radio telescopes or satellite earth station antennas as ultra-high scattering cross-section calibration targets for spaceborne remote sensing radars. K.M. Keen p225

RADIATION AND RADIATION EFFECTS

Radiation-induced loss and colour-centre concentration in optical fibres. H. Yashima, H. Mitera and Y. Itoh p11

RADIO LINKS

Reduced long-range signal reception with leaky feeders. A.J. Motley and D.A. Palmer p714

RADIOCOMMUNICATION

Digital radio outage prediction with space diversity. J.C. Campbell p1003

RADIOMETERS

230-271 GHz cryogenic radiometer. B.N. Ellison and D.R. Vizard p586
Reduction of preamplifier noise induced measurement errors in radiometers. M. Spaude and B. Schiek p563

RADIOWAVE PROPAGATION

Assessment of principal planes orientation in a terrestrial link at 18 GHz during intense rainfall. D. Maggiori, P. Migliorini and A. Paraboni p617
Charactering buildings for propagation at 900 MHz. S.E. Alexander p860
Effects of filtering on statistics of rain-induced fade durations. E. Mattriciani e30
Improved agile notch adaptive equaliser. J.K. Chamberlain and A.J. Price p785
Mobile radio propagation in Auckland at 465 MHz. G.B. Rowe, A.G. Williamson and B. Egan p207
Mobile radio propagation in Auckland at 76 MHz. G.B. Rowe, A.G. Williamson and B. Egan p1064

Simple rain-attenuation-prediction technique for terrestrial radio links. J.A. Garcia-Lopez and J. Peiro p879
Theoretical model for calculating rain-induced crosspolarisation. F. Moupfouma p467
Topology-finite-element method for solving electromagnetic field problems. Song Guoxiang and Shi Huli p572
Two-parameter empirical model for rainfall rate distribution. F. Moupfouma p800
Variability of mobile radio path loss in Auckland at 465 MHz. G.B. Rowe, A.G. Williamson and B. Egan p588

RAIN

Long-term precipitation rate statistics for north-east of Spain. M. Puigcerver, S. Alonso, J. Lorente and E. Vilar p129
Simple rain-attenuation-prediction technique for terrestrial radio links. J.A. Garcia-Lopez and J. Peiro p879
Two-parameter empirical model for rainfall rate distribution. F. Moupfouma p800

RECEIVERS

1.52 μm PSK heterodyne experiment featuring an external cavity diode laser local oscillator. R. Wyatt, T.G. Hodgkinson and D.W. Smith p550
Distance measure for simplified receivers. A. Svensson, C.-E. Sundberg and T. Aulin p953
Performance of a cryogenic 3 mm Schottky-mixer receiver on the Metsähovi 14 m radio telescope. A. Räisänen, A. Lehto, M. Tiuri and J. Lamb p892
Practical low-noise quasiparticle receiver for 80-100 GHz. R. Blundell, K.H. Gundlach and E.J. Blum p498

RECOMBINATION

Analysis of radiative and nonradiative recombination law in lightly doped InGaAsP lasers. G.H.B. Thompson p154
Determination of minority carrier lifetime and effective back surface recombination velocity in BSF silicon solar cells from transient mearsurements. S.C. Jain, S.K. Agarwal and U.C. Ray p365

REFLECTOR ANTENNAS

Crosspolarisation properties of reflector antennas with random surface errors. J.M.M. Vissers, M.H.A.J. Herben and E.J. Maanders p49
Fast algorithm for the exact determination of the mapped effective areas of trihedral radar reflectors. K.M. Keen p1014
Offset spherical dual-reflector antenna. R.C. Brown, P.J.B. Clarricoats and P. Ramanujam p912
Prediction of scattering cross-section reductions due to plate orthogonality errors in trihedral radar reflectors. K.M. Keen p115
Reduction of sidelobe level of reflector antennas by covering feed struts with a periodic structure. V. Hombach p371
Simplified linearly polarised contoured beam reflector antenna for a European coverage requirement. G.A.E. Crone and A.G. Roederer p720
Unique reflector arrangement with very wide field of view for multibeam antennas. C. Dragone p1061

REFRACTIVE INDEX PROFILES

Characterisation of single-mode fibres by near-field measurement. G. Coppa, P. Di Vita and U. Rossi p293
Effects of loss on equivalent-step-index fibre determination. C. Pask and F. Rühl p643
New method for equivalent-step-index fibre determination. C. Pask and F. Rühl p658
Resolution improvement in refracted near-field index measurement by a lens-shaped liquid cell. T. Müller p580

REPEATERS

81 km submarine optical repeater trial. G. Bourret, A. Doll, G. Bassier, G. Raffin and M. Jurczyszyn p1053
Jitter accumulation with SAW timing extraction at 325 Mbaud. S.D. Walker, R.B.P. Carpenter and P. Cochrane p193

RESONANCE

Optical bistability and nonlinear resonance in a resonant-type semiconductor laser amplifier. K. Otsuka and S. Kobayashi p262

RESONATORS

High-order azimuthal modes in the open resonator. P.K. Yu and K.M. Luk p539
Influence of substrate conductivity on characteristics of ZnO/SiO_2-diaphragm piezoelectric resonators. K. Nakamura, H. Sasaki and H. Shimizu p521
Polarisation-maintaining single-mode-fibre resonator. E.-J. Bachus, R.-P. Braun and B. Strebel p1027

SATELLITE LINKS

Concept of multport-coupling beam-switching network and its basic performance in K-band. M. Kawai, K. Suzuki and S. Egami p990

SCATTERING

Exact calculations of scattering parameters of a step slot width discontinuity in a unilateral fin-line. M. Helard, J. Citerne, O. Picon and V. Fouad Hanna p537
High-gain optical amplification of laser diode signal by Raman scattering in single-mode fibres. E. Desurvire, M. Papuchon, J.P. Pocholle, J. Raffy and D.B. Ostrowsky p751
Inductive twin-strip gratings in incident TE waves. M.J. Archer p118
New approach to calculation of electromagnetic scattering by a perfectly conducting rectangular cylinder. S. Sugimoto and S. Kozaki p861
Performance degradation due to stimulated Raman scattering in wavelength-division-multiplexed optical-fibre systems. A.R. Chraplyvy and P.S. Henry p641
Prediction of scattering cross-section reductions due to plate orthogonality errors in trihedral radar reflectors. K.M. Keen p115
Rayleigh scattering in fluoride glass optical fibres. D.C. Tran, K.H. Levin, C.F. Fisher, M.J. Burk and G.H. Sigel, Jun. p165

SCHOTTKY-BARRIER DEVICES

Electroplated Au-GaAs$_{1-x}$P$_x$ and Au-Ga$_{1-x}$Al$_x$As Schottky barriers. M. Loipez-Coronado, M. Aguilar, M.T. Martinez, E. Calleja and E. Munnoz p666
Tunnelling in alluminium/aluminium-oxide/palladium junctions: hydrogen-induced variations. A. Diligenti and M. Stagi p717

SEMICONDUCTOR DEVICES AND MATERIALS

(GaAl)As/GaAs heterojunction bipolar transistors with graded composition in the base. D.L. Miller, P.M. Asbeck, R.J. Anderson and F.H. Eisen p367
1.55 μm multisection ridge lasers. J.E. Bowers, L.A. Coldren, B.R. Hemenway, B.I. Miller and R.J. Martin p523
100 GHz bandwidth planar GaAs Schottky photodiodes. S.Y. Wang and D.M. Bloom p554
140 GHz 70 mW CW output power with n-type silicon single drift IMPATT diodes. J. Wenger p908
AlN capped annealing of Se and Sn implanted semi-insulating GaAs. R. Bensalem, N.J. Barrett and B.J. Sealy p112
Alloy composition and flow rates in Ga$_x$In$_{1-x}$As$_y$P$_{1-y}$ lattice-matched to InP grown by MO-CVD. S. Sugou, A. Kameyama, H. Katsuda, Y. Miyamoto, K. Furuya and Y. Suematsu p1036
Amorphous-silicon FET array for LCD panel. K. Katoh, M. Yasui, S. Kuniyasu and H. Watanabe p506
Analysis of efficiency limitations in high-low emitter back surface field silicon solar cells (comment). S.R. Dhariwal and R. Gadre d103
Analysis of radiative and nonradiative recombination law in lightly doped InGaAsP lasers. G.H.B. Thompson p154
Analytic transformation of the generation-recombination centres in the transmission-line equivalent-circuit model of a semiconductor. C.Y. Kwok p947
Anisotropic undercutting in (100) indium phosphide. B.R. Hemenway, J.E. Bowers and B.I. Miller p1049
Annealing behaviour of gamma-ray-induced electron traps in LEC n-InP. J. Koyama, J. Shirafuji and Y. Inuishi p609
Anodic oxidation of a-Si:H films. H. Yamamoto, S. Arimoto, H. Hasegawa, H. Ohno and J. Nanjo p6
Anodic oxide gate a-Si:H MOSFET. H. Yamamoto, T. Sawada, S. Arimoto, H. Hasegawa and H. Ohno p607
Assessment of millimetre-wave Si impatt material. L.A. Hing and J.E. Curran p1091
Attenuation measurements on MOCVD-grown GaAs/GaAlAs optical waveguides. R.G. Walker and R.C. Goodfellow p590
Au-Mg improved ohmic constants to p-GaAs. N.A. Papanicolaou and A. Christou p418
Bipolar transistor with graded band-gap-base. J.R. Hayes, F. Capasso, A.C. Gossard, R.J. Malik and W. Wiegmann p410
Bulk unipolar diodes in MBE GaAs. J.M. Woodcock and J.J. Harris p181
Capacitance/voltage characteristics of semiconductor-insulator-semiconductor (SIS) structure. K. Nagai, Y. Hayashi and T. Sekigawa p376
Carrier lifetimes in silicon epitaxial layers deposited on oxygen-implanted substrates. K. Das, G.P. Shorthouse and J.B. Butcher p139
Chirped picosecond injection laser pulse transmission in single-mode fibres in the minimum chromatic dispersion region. C. Lin and A. Tomita p837
Composition control in proton-exchanged $LiNbO_3$. J.L. Jackel, C.E. Rice and J.J. Veselka p387
Contacts between amorphous metals and semiconductors. M.J. Kelly, A.G. Todd, M.J. Sisson and D.K. Wickenden p474
Control of the height of Schottky barriers on MBE GaAs. J.M. Woodcock and J.J. Harris p93
Current oscillations in semiconductor diodes under streaming instability conditions. V. Gruzyinskis and A. Reklaitis p733
Degredation mechanism in 1.3 μm InGaAsP/InP buried crescent laser diode at a high temperature. E. Oomura, H. Higuchi, R. Hirano, Y. Sakakibara, H. Namizaki and W. Susaki p407
Dependence of electron mobility on spacer thickness and electron density in modulation-doped $Ga_{0.47}In_{0.53}As/Al_{0.48}In_{0.52}As$ heterojunctions. K.H. Hsieh, H. Ohno, G. Wicks and L.F. Eastman p160
Effect of electric fields on long-wavelength response of infra-red detectors. D.D. Coon and R.P.G. Karunasiri p284
Effects of grain boundary passivation on the characteristics of *p*-channel MOSFETs in LPCVD polysilicon. S.D.S. Malhi, R.R. Shah, H. Shichijo, R.F. Pinizzotto, C.E. Chen, P.K. Chatterjee and H.W. Lam p993
Electric-field-shielding layers formed by oxygen implantation into silicon. S. Nakashima, M. Akiya and K. Kato p568
Electrical measurements on silver-diffused InP. B. Tuck and R. Chaoui p565
Electroplated Au-GaAs$_{1-x}$P$_x$ and Au-Ga$_{1-x}$Al$_x$As Schottky barriers. M. Loipez-Coronado, M. Aguilar, M.T. Martinez, E. Calleja and E. Munnoz p666
Enhanced bandgap resonant nonlinear susceptibility in quantum-well heterostructures. M.G. Burt p132
Enhancement-mode metal/(Al, Ga)As/GaAs buried-interface field-effect transistor (BIFET). T.J. Drummond, W. Kopp, D. Arnold, R. Fischer, H. Morkoç, L.P. Erickson and P.W. Palmberg p986
Equivalent-circuit consideration of dual-gate MESFETs at high frequency. B. Kim p705
Fast photoconductive GaAs detectors made by laser stimulated MOCVD. W. Roth, H. Schumacher and H. Beneking p142
Fast processing of 4 in silicon wafers using two 150 W halogen lamps. D.P. Vu, M. Haond, T.Ternisien D'Ouville, A. Perio and H. Mingam p4
Field ionised impurity scattering in an AlGaAs/GaAs two-dimensional electron gas. A. Livingstone, K. Tsubaki, M. Kawashima, H. Okamoto and K. Kumabe p619
GaAs FET power amplifier module with high efficiency. K. Chiba and N. Kanmuri p1025
GaAs integrated digital-to-analogue converter for control of power dual-gate FETs. P. Saunier, B. Kim and W.R. Frensley p162
GaInAs/InP large bandwidth (>2 GHz) PIN detectors. T.P. Pearsall, R.A. Logan and C.G. Bethea p611
$Ga_{0.47}In_{0.53}As/Al_{0.48}In_{0.52}As$ multiquantum-well LEDs emitting at 1.6 μm. K. Alavi, T.P. Pearsall, S.R. Forrest and A.Y. Cho p227
Gain spectra of quantum-well lasers. M.G. Burt p210
Ge-seeded crystallisation on SiO_2 by using a slider system with RF heated strip heater. Y. Ohmachi, T. Nishioka and Y. Shinoda p274
Generation of single-longitudinal-mode gigabit-rate optical pulses from semiconductor lasers through harmonic-frequency sinusoidal modulation. H. Kawaguchi and K. Otsuka p668
Grain boundary diffusion in columnar structure polycrystalline materials. H.F. Ragaie p294
Growth of $Al_{0.3}Ga_{0.7}As$ by molecular beam epitaxy in the forbidden temperature range using As_2. L.P. Erickson, T.J. Mattord, P.W. Palmberg and R. Fischer p632

Growth of large areas of grain boundary-free silicon-on-insulator. J.P. Colinge, D. Bensahel, M. Alamome, M. Haond and J.C. Pfister p985
High-gain low-noise GaAlAs-GaAs phototransistors. A. Scavennec, D. Ankri, C. Besombes, C. Courbet, J. Riou and F. Heiliot p394
High-performance modulation-doped GaAs integrated circuits with planar structures. C.P. Lee and W.I. Wang p155
High-power InP MISFETs. M. Armand, D.V. Bui, J. Chevrier and N.T. Linh p433
High-resolution mapping of pn-junctions by computer-processed EBIC-signals. H.K. Schink and H. Rehme p383
High-speed GaAlAs-GaAs heterojunction bipolar transistors with near-ballistic operation. D. Ankri, W.J. Schaff, P. Smith and L.F. Eastman p147
High-speed GaAs heterojunction bipolar phototransistor grown by molecular beam epitaxy. D. Ankri, W.J. Schaff, J. Barnard, L. Lunardi and L.F. Eastman p278
High-speed Schottky photodiode on semi-insulating GaAs. Z. Rav-Noy, C. Harder, U. Schreter, S. Margalit and A. Yariv p753
High-speed planar InP/InGaAs avalanche photodiode fabricated by vapour phase epitaxy. H. Ando, Y. Yamauchi and N. Susa p543
Hot-electron noise generation in gallium-arsenide Schottky-barrier diodes. N.J. Keen and H. Zirath p853
Hydrogenation of electron traps in bulk GaAs and GaP. S.J. Pearton, E.E. Haller and A.G. Elliott p1052
Implications of velocity overshoot in heterojunction transit-time diodes. P.A. Blakey, J.R. East, M.E. Elta and G.I. Haddad p510
In situ mass spectrometric investigation of metallised InP samples during annealing. I. Mojzes, D. Szigethy and R. Veresegyhazy p117
InGaAs avalanche photodiodes for 1 μm wavelength region. T. Shirai, T. Mikawa, T. Kaneda and A. Miyauchi p534
InP MIS transistors with grown-in sulphur dielectric. G. Post, P. Dimitriou, A. Scavennec, N. Duhamel and A. Mircea p459
$In_{0.53}Ga_{0.47}As$ liquid phase epitaxy on (100)-InP substrates at low growth temperatures. H. Eisele, W. Körber and K.W. Benz p1035
In_xGa_{1-x} As-epitaxy with metalorganic adducts. P. Speier, F. Scholz, K.W. Benz, H. Renz and J. Weidlein p728
Incorporation of Sb IN $GaAs_{1-x}Sb_x$ ($x<0.15$) by molecular beam epitaxy. J. Klem, R. Fischer, T.J. Drummond, H. Morkocced and A.Y. Cho p453
Instabilities in modulation doped field-effect transistors (MODFETs) at 77 K. R. Fischer, T.J. Drummond, W. Kopp, H. Morkocced, K. Lee and M.S. Shur p789
Integral packaging for millitmetre-wave GaAs impatt diodes prepared by molecular beam expitaxy. B. Bayraktaroglu and H.D. Shih p327
Integrated MOS offset error canceller for analogue adaptive transversal filter. T. Enomoto, T. Ishihara, M. Yasumoto and K. Watanabe p968
Integrated PINFET optical receiver with high-frequency InP-MISFET. K. Kasahara, M. Sugimoto, H. Nomura and S. Suzuki p905
Integrated optical spectrum analyser using planar technology on oxidised silicon substrate. S. Valette, J. Lizet, P. Mottier, J.P. Jadot, S. Renard, A. Fournier, A.M. Grouillet, P. Gidon and H. Denis p883
Integrating infra-red detector with electronically modulated response. D.D. Coon, S. Gunapala, R.P.G. Karunasiri and H.-M. Muehlhoff p1070
LPE growth of InP/InGaAs/InP DH wafers on (100) InP substrates. N.S. Takahashi, T. Sasaki, A. Fukushima and S. Kurita p402
Lattice-matched and mismatched multiquantum-well heterostructure photodiodes for operation at 1·1 to 1·5 μm. P.K. Bhattacharya and V.K. Tripathi p924
Light sensitivity of $Al_{0.25}Ga_{0.75}As$/GaAs modulation-doped structures grown by molecular beam epitaxy : effect of substrate temperature. R. Fischer, D. Arnold, R.E. Thorne, T.J. Drummond and H. Morkoc p200
Localisation of defects on SOI films via selective recrystallisation using halogen lamps. D. Bensahel, M. Haond, D.P. Vu and J.P. Colinge p464
Low contact resistance nonalloyed ohmic contacts to Zn-implanted $^+$ GaAs. C.-Y. Su and C. Stolte p891
Low-pressure MOVPE growth of Sn-doped GaAs. A.P. Roth, R. Yakimova and V.S. Sundaram p1062
Low-temperature expitaxial growth of (100) silicon. M. Milosavljevic, C. Jeyens and I.H. Wilson p669
MIM gate FET: new GaAs enhancement-mode transistor. E. Kohn and J.M. Dortu p434
Measurement of screened voltages by electron-beam-induced conductivity (EBIC). H.K. Schink p177
Minimisation of on-resistance of VDMOS power FETs. D.J. Byrne and K. Board p519
Modes of operation in dual-gate MESFET mixers. H. Ashoka and R.S. Tucker p428
Modifications to MOS transistor model CASMOS for increased accuracy of DC simulations of heavily channel-doped n-MOS devices. M.P. Brassington and C.N. Duckworth p447
Molecular beam expitaxial double heterojunction bipolar transistors with high current gains. S.L. Su, W.G. Lyons, O. Tejayadi, R. Fischer, W. Kopp, H. Morkoc,, W. Mclevige and H.T. Yuan p128
Monte Carlo particle simulation of a GaAs short-channel MESFET. Y. Awano, K. Tomizawa, N. Hashizume and M. Kawashima p20
Negative differential resistance in GaAs MESFETs. T.A. Fjeldly and J.S. Johannessen p649
New $Ga_{0.47}In_{0.53}As$ sheet-charge field-effect transistor for long-wavelength optoelectronic integration. C.Y. Chen, K. Alavi, A.Y. Cho, P.A. Garbinski and Y.M. Pang p791
New approach towards frequency stabilisation of linewidth-narrowed semiconductor lasers. C.J. Nielsen and J.H. Osmundsen p644
New method for determining the series resistances in a MESFET or TEGFET. P. Urien and D. Delagebeaudeuf p702
New negative-resistance device by a chirp superlattice. T. Nakagawa, N.J. Kawai, K. Ohta and M. Kawashima p822
New technique for semiconductor device modelling. P.K. Goswami and J.E. Sitch p1087
New temperature fluctuation method for direct determination of thermal activation energy of deep levels in semiconductors. V. Kumar and H. Indusekhar p271
New ultra-high-speed GaAs strobed comparators. D. Meignant and M. Binet p67
Nonreciprocal HF signal transmission by surface helicon. G. Ruibys and R. Tolutis p273
Novel design of travelling-wave FET. Ce-Jun Wei p461
Novel vertical GaAs FET structure with submicrometre source-to-drain spacing. E. Kohn, J. Magarshack, U. Mishra and L.F. Eastman p1021
Optical injection locking of X-band FET oscillator using coherent mixing of GaAlAs lasers. L. Goldberg, C. Rauscher, J.F. Weller and H.F. Taylor p848
Optimum choice of Si FET or GaAs FET as first-stage active device for very low-noise optical receivers with medium bandwidths. W. Schmidt auf Altenstadt p937
PMOS transistors fabricated in large-area laser-crystallised Si on silica. D. Herbst, M.A. Bo7sch, R.A. Lemons, S.K. Tewksbury and T.R. Harrison p12
Palladium-silicondioxide-silicon structures as hydrogen sensors in electrolytes. I. Lundström, C. Nylander and A. Spetz p249
Photochemical microetching of GaAs. S. Mottet and L. Henry p919
Physical mechanisms of bandgap-narrowing in silicon. W. Zagozddzdon-Wosik and W. Kuzimicz p515
Planar InP/InGaAs-APD with a guardring formed by Cd diffusion through SiO_2. M. Ikeda, K. Wakita, S. Hata, S. Kondo and H. Kanbe p61
Planar structure AlGaAs/GaAs PIN photodiode grown by MOCVD. M. Ito, O. Wada, S. Miura, K. Nakai and T. Sakurai p522
Polycrystalline silicon sheets for solar cells by improved spinning method. Y. Maeda, T. Yokoyama and I. Hide p441
Postgrowth heat-treatment effects in high-purity liquid-phase-epitaxial $In_{0.53}Ga_{0.47}As$. M.V. Rao and P.K. Bhattacharya p196
Preserving InP surface corrugations for 1.3 μm GaInAsP/InP DFB lasers from thermal deformation during LPE process. J. Kinoshita, H. Okuda and Y. Uematsu p215
Proposing a new backward solar cell. K.K. Govil p395
Quarter-micron gate length microwave high electron mobility transistor. P.C. Chao, T. Yu, P.M. Smith, S. Wanuga, J.C.M. Hwang, W.H. Perkins, H. Lee, L.F. Eastman and E.D. Wolf p894
Receiver sensitivity of InGaAsP/InP heterostructure avalanche photodiode with InGaAsP buffer layers at 1·5–1·6 μm region. Y. Matsushima, N. Seki, S. Akiba, Y. Noda and Y. Kushiro p845
Regrowth of amorphous layers in silicon-on-insulator structures formed by the implantation of oxygen. P.L.F. Hemment, E.A. Maydell-Ondrusz, K.G. Stephens and P.D. Scovell p483
Relationships for the drift and diffusion components of the drain current in an MOS transistor. C. Turchetti p960
Selective implantation of GaAs for MESFET applications. M.H. Badawi, D.R. Dunbobbin and J. Mun p598
Simple formulas giving temperature profiles in active layer of stripe-geometry laser diode without oxide barriers. W. Nakwaski p368
Simulation of GaAs submicron FET with hot-electron injection structure. K. Tomizawa, Y. Awano, N. Hashizume and M. Kawashima p697
Small-active-area germanium avalanche photodiode for single-mode fibre at 1.3 μm wavelength. T. Mikawa, T. Kaneda, H. Nishimoto, M. Motegi and H. Okushima p452
Stable tantalum silicide Schottky barrier on n-type gallium arsenide evaluated at elevated temperatures. W.F. Tseng and A. Christou p330
Stress tests on 1.3 μm buried-heterostructure laser diode. T. Ikegami, K. Takahei, M. Fukuda and K. Kuroiwa p282
Structure of GaAs-$Ga_{1-x}Al_xAs$ superlattices grown by metal-organic chemical vapour deposition. R.J.M. Griffiths, N.G. Chew, A.G. Cullis and G.C. Joyce p988
Study of deep level in bulk P-InP by admittance spectroscopy. J.M. Kuo and F.A. Thiel p41
Subscriber line interface circuit LSI fabricated using high-voltage CMOS/SIMOX technology. S. Nakashima and Y. Maeda p1095
Substrate bias effect for C-MOS operational amplifier using SIMOX technology. M. Akiya and T. Kimura p36
Subthreshold currents in CMOS transistors made on oxygen-implanted silicon. D.J. Foster p684
TDEG in $In_{0.53}Ga_{0.47}As$-InP heterojunction grown by chloride VPE. J. Komeno, M. Takikawa and M. Ozeki p473
Temporal and spectral characteristics of rapidly gain-switched GaAs/GaAlAs buried-heterostructure lasers. G. Veith, J. Kuhl and E.O. Göbel p385
Theory of FM noise of single-mode injection lasers. R. Schimpe and W. Harth p136
Transient characteristics of latch-up in bulk CMOS. T. Aoki, R. Kasai and S. Horiguchi p758
Triggering pulse durations in transferred electron devices. T.F. Carruthers and J.F. Weller p955
Tunnelling in alluminium/aluminium-oxide/palladium junctions: hydrogen-induced variations. A. Diligenti and M. Stagi p717
Use of a sputtered SiO_2 coating for surface protection during 'leaky tube' diffusion of Zn into GaAs. J.L. Edwards and R.J. Roedel p962
Very low threshold GaInAsP/InP double-heterostructure lasers grown by LP MOCVD. M. Razeghi, S. Hersee, P. Hirtz, R. Blondeau, B. deCremoux and J.P. Duchemin p336
a-Si : H MIS position sensitive detector by by anodic oxidation processes. S. Arimoto, H. Yamamoto, H. Ohno and H. Hasegawa p628

SEMICONDUCTOR DEVICES AND MATERIALS TESTING

Quasi-two-dimensional analytical solution of Poisson equation in arbitrarily doped short-channel MOSFET. T. Skotnicki p797
Transferred-electron effect in $In_{0.53}Ga_{0.47}As$. W. Kowalsky and A. Schlachetzki p189

SEMICONDUCTOR LASERS

0.66 μm room-temperature operation of InGaAlP DH laser diodes grown by MBE. Y. Kawamura, H. Asahi, H. Nagia and T.T. Ikegami p163
0.81 μm band AlGaAs/GaAs double-channel planar buried-heterostructure laser with large optical cavity. M. Ueno, H. Kawano, T. Furuse and I. Sakuma p370
1.3 μm InGaAsP/InP multiquantum-well lasers grown by vapour-phase epitaxy. T. Yanase, Y. Kato, I. Mito, M. Yamaguchi, K. Nishi, K. Kobayashi and R. Lang p700
1.5 μm wavelength GaInAsP C^3 lasers: single-frequency operation and wide-band frequency tuning. W.T. Tsang, N.A. Olsson, R.A. Linke and R.A. Logan p415
10 kHz linewidth 1.5 μm InGaAsP external cavity laser with 55 nm tuning range. R. Wyatt and W.J. Devlin p110
Aging characteristics of InGaAsP/InP DFB lasers. Y. Nakano, G. Motosugi, Y. Yoshikuni and T. Ikegami p437
Aging test of MOCVD shallow proton stripe GaInAsP/InP, DH laser diode emitting at 1.5 μm. M. Razeghi, P. Hirtz, R. Blondeau, B. de Cremoux and J.P. Duchemin p481
AlGaAs/GaAs multiquantum-well (MQW) laser applied to a monolithic integration with FET driver. S. Yamakoshi, T. Sanada, O. Wada, T. Fujii and T. Sakurai p1020
Analysis of radiative and nonradiative recombination law in lightly doped InGaAsP lasers. G.H.B. Thompson p154
CW high-power single-mode operation of gain-guided stripe-geometry multiple-quantum-well lasers. C. Lindström, R.D. Burnham, T.L. Paoli, W. Streifer and D.R. Scifres p104
CW operation of 1.5 μm GaInAsP/InP buried-heterostructure laser with a reactive-ion-etched facet. O. Mikami, H. Akiya, T. Saitoh and H. Nakagome p213

Deformation-free overgrowth of InGaAsP DFB corrugations. A.W. Nelson, L.D. Westbrook and J.S. Evans p34
Degredation mechanism in 1.3 μm InGaAsP/InP buried crescent laser diode at a high temperature. E. Oomura, H. Higuchi, R. Hirano, Y. Sakakibara, H. Namizaki and W. Susaki p407
Demonstration of multilevel mutichannel optical frequency shift keying (FSK) with cleaved-coupled-cavity (C^3) semiconductor lasers. W.T. Tsang, N.A. Olsson, R.A. Logan and R.A. Linke p341
Direct observation of visibility curve of semiconductor lasers. W. Eickhoff, E. Brinkmeyer and H. Barfubbr p739
Dynamic behaviour of a GaAs-AlGaAs MQW laser diode. H. Iwamura, T. Saku, T. Ishibashi, K. Otsuka and Y. Horikoshi p180
Effect of Auger recombination on the threshold characteristics of gain-guided InGaAsP lasers. G.P. Agrawal and N.K. Dutta p974
Einstein relations for gain-guided semiconductor lasers. W. Elsässer and E.O. Göbel p335
Electrical tuning of semiconductor interferometric laser. H.A. Fattah and S. Wang p926
Emission frequency stability in single-mode-fibre optical feedback controlled semiconductor lasers. F. Favre and D. le Guen p663
Experimental investigation of stability properties for a semiconductor laser with optical feedback. J.H. Osmundsen, B. Tromborg and H. Olesen p1068
Far-field distribution of semiconductor phase-locked arrays with multiple contacts. J. Katz, E. Kapon, C. Lindsey, S. Margalit and A. Yariv p660
Feedback-induced noise in index-guided semiconductor lasers and its reduction by modulation. K. Stubkjaer and M.B. Small p388
GaAlAs buried-heterostructure lasers grown by a two-step MOCVD process. C.S. Hong, D. Kasemset, M.E. Kim and R.A. Milano p759
GaAs/GaAlAs active-passive-interference laser. H.K. Choi and S. Wang p302
Gain spectra of quantum-well lasers. M.G. Burt p210
High-peak-power asymmetric double-heterostructure (GaAl)As-GaAs injection laser. I. Samid, M. Benedek, U. Mirsky and M. Yust p754
High-power aging test on 1·3 μm DC-PBH lasers with reflective coated mirror. S. Murata, M. Kitamura, M. Yamaguchi, I. Mito and K. Kobayashi p1084
High-quality 1·3 μm GaInAsP/InP BH-DFB lasers with first-order gratings. H. Okuda, Y. Hirayama, J. Kinoshita, H. Furuyama and Y. Uematsu p941
High-speed 1.55 μm single-longitudinal-mode ridge waveguide C^3 laser. I.P. Kaminow, J.-S. Ko, R.A. Linke and L.W. Stulz p784
Hybrid LPE/MBE-grown InGaAsP/InP DFB lasers. H. Asahi, Y. Kawamura, Y. Noguchi, T. Matsuoka and H. Nagai p507
Influence of spectral hole-burning on quaternary laser transients. M.J. Adams and M. Osiniski p627
Injection-locked 1.5 μm InGaAsP/InP lasers capable of 450 Mbit/s transmission over 106 km. H. Nishimoto, H. Kuwahara and M. Motegi p509
Lasing characteristics of improved GaInAsP/InP surface emitting injection lasers. K. Iga, H. Soda, T. Terakado and S. Shimizu p457
Linewidth broadening in semiconductor lasers due to mode competition noise. I.D. Henning p935
Linewidth of a single mode in a multimode injection laser. M.J. Adams p652
Long delay time for lasing in very narrow graded barrier single-quantum-well lasers. F.C. Prince, N.B. Patel, D. Kasemset and C.S. Hong p435
Longitudinal-mode characteristics for 1.3 μm GaInAsP/InP DFB lasers just below the threshold current. H. Okuda, J. Kinoshita, Y. Hirayama and Y. Uematsu p362
Low threshold current GaAs/GaAlAs GRIN-SCH stripe lasers grown by OMVPE. M. Krakowski, P. Hirtz, R. Blondeau, S.D. Hersee, M. Baldy, B. de Cremoux and J.P. Duchemin p1082
Measurement of spectra of and correlation between FM and AM noises in GaAlAs lasers. K. Kikuchi and T. Okoshi p812
Measurement of very-high-speed photodetectors with picosecond InGaAsP film lasers. J.M. Wiesenfeld, A.R. Chraplyvy, J. Stone and C.A. Burrus p22
Measurements of the semiconductor laser linewidth broadening factor. I.D. Henning and J.V. Collins p927
New approach to the manufacture of low-threshold 1.5 μm distributed feedback lasers. L.D. Westbrook, A.W. Nelson and C. Dix p423
New diffraction grating profiles in InP for DFB lasers and integrated optics. L.D. Westbrook, A.W. Nelson and P.J. Fiddyment p1076
Optical bistability and nonlinear resonance in a resonant-type semiconductor laser amplifier. K. Otsuka and S. Kobayashi p262
Optical phase-locked loop using semiconductor laser diodes. R.C. Steele p69
Phase-locked (GaAl)As laser diode emitting 2.6 W CW from a single mirror. D.R. Scifres, C. Lindström, R.D. Burnham, W. Streifer and T.L. Paoli p169
Polarisation-dependent gain-current relationship in GaAs-AlGaAs MQW laser diodes. H. Kobayashi, H. Iwamura, T. Saku and K. Otsuka p166
Preserving InP surface corrugations for 1.3 μm GaInAsP/InP DFB lasers from thermal deformation during LPE process. J. Kinoshita, H. Okuda and Y. Uematsu p215
Quaternary 1.5 μm (InGaAsP/InP) buried crescent lasers with seperate optical confinement. J.P. van derZiel, H. Temkin and R.A. Logan p113
Radiative and nonradiative recombination law in lightly doped InGaAsP lasers. D. Yevick and W. Streifer p1012
Room-temperature optically triggered bistability in twin-stripe lasers. I.H. White, J.E. Carroll and R.G. Plumb p558
Screening of long-wavelength laser at high temperature and high current levels. H. Higuchi, E. Oomura, R. Hirano, Y. Sakakibara, H. Namizaki, W. Susaki and K. Fujikawa p976
Semiconductor laser linewidth broadening due to 1/*f* carrier noise. M.J. O'Mahony and I.D. Henning p1000
Semiconductor laser linewidth in optical feedback configurations. E. Patzak, A. Sugimura, S. Saito, T. Mukai and H. Olesen p1026
Short-cavity single-frequency InGaAsP buried-heterostructure lasers. T.P. Lee, C.A. Burrus, R.A. Linke and R.J. Nelson p82
Simple method for feedback parameter determination in optical feedback controlled semiconductor lasers. Y. Bouidene, F. Favre and D. Le Guen p1017
Single-mode semiconductor laser optically pumped by an injection laser. T.C. Damen, M.A. Duguay, B.I. Miller and C. Lin p3
Spectral linewidth reduction in semiconductor lasers by an external cavity with weak optical feedback. E. Patzak, H. Olesen, A. Sugimura, S. Saito and T. Mukai p938
Stable single-longitudinal-mode operation under high-speed direction modulation in cleaved-coupled-cavity GaInAsP semiconductor lasers. W.T. Tsang, N.A. Olsson and R.A. Logan p488
Suppression of intensity fluctuation of a longitudinal mode in directly modulated GaInAsP/InP dynamic single-mode. F. Koyama, T. Tanbun-Ek, S. Arai, S. Wang, Y. Suematsu and K. Furuya p325
Temporal and spectral characteristics of rapidly gain-switched GaAs/GaAlAs buried-heterostructure lasers. G. Veith, J. Kuhl and E.O. Göbel p385
Theory of FM noise of single-mode injection lasers. R. Schimpe and W. Harth p136
Thermally accelerated degradation of 1.3 μm BH lasers. Y. Nakano, M. Fukuda, H. Sudo, O. Fujita and G. Iwane p567
Tuning characteristics of optical amplification in 1.5 μm InGaAsP/InP lasers. H. Kuwahara, T. Chikama and T. Nakagami p295
Very high CW output power and power conversion efficiency from current-confined CDH-LOC diode lasers. D. Botez, J.C. Connolly, M. Ettenberg and D.B. Gilbert p882
Very low threshold GaInAsP/InP double-heterostructure lasers grown by LP MOCVD. M. Razeghi, S. Hersee, P. Hirtz, R. Blondeau, B. de Cremoux and J.P. Duchemin p336
Wavelength tuning of GaInAsP/InP integrated laser with butt-jointed built-in distributed Bragg reflector. Y. Tohmori, Y. Suematsu, H. Tsushima and S. Arai p656
Wideband frequency-shift keying with a spectrally bistable cleaved coupled cavity semiconductor laser. N.A. Olsson and W.T. Tsang p808

SEMICONDUCTORS (III-V)

High-gain low-noise GaAlAs-GaAs phototransistors. A. Scavennec, D. Ankri, C. Besombes, C. Courbet, J. Riou and F. Heiliot p394
In situ mass spectrometric investigation of metallised InP samples during annealing. I. Mojzes, D. Szigethy and R. Veresegyhazy p117

SENSITIVITY

Calculating transfer function and its first- and second-order sensitivities using one network analysis. P.H. di Mambro p421
Characterisation of second-order discrete-time filters. A. Nishihara p84
Comment and reply on Calculating transfer function and its first- and second-order sensitivities using one network analysis. J.K. Fidler and P.H. di Mambro p914
Digital-filter functions with fast coefficient implementation: an addendum. R. Venkatesan and J.J. Narraway p84
Numerical algorithm for pole-sensitivity study of LC ladder networks. E.C. Tan p7

SEQUENTIAL CIRCUITS AND MACHINES

Really prime classes implying only really prime classes. G.V. Russo, G. Palama and A.C. Neve p500

SIGNAL GENERATORS

High-resolution digital sinewave generation. J.M. Worley p123

SIGNAL PROCESSING

2-bit 1 Gsample/s electro-optic guided-wave analogue-to-digital convertor system. R.A. Becker, C.E. Woodward and F.J. Leonberger p332
Algorithm for solving a class of phase-lock-loop equations. P. Hasan p153
Applicability of the relay correlator to radar signal processing. S. Cacopardi p722
Cochannel and intersymbol interferences in QAM system. H.T. Huynh and P. Fortier p764
Digital complex sampling. V. Considine p608
Efficient SAW convolver with 30 μs integration time. M.F. Lewis and C.L. West p413
Error rates for M-ary noncoherent FSK in impulsive reverberation noise. A.M. Maras, H. Davidson and A.G.J. Holt p405
Estimation of truncation and aliasing errors involved in DFT computation. R. Ishii and M. Wakamoto p770
Fast digital convolution using p-adic transforms. N.M. Nasrabadi and R.A. King p266
Fast discrete cosine transform algorithm for systolic arrays. J.S. Ward and B.J. Stanier p58
Fast hardware implementation of the Winograd Fourier transform algorithm. M.D. Macleod and N.L. Bragg p363
Further results on maximally flat nonrecursive digital filters. M.V.A. Bromba and H. Ziegler e30
General form for representing the Fourier transform. K.M. Henein and R.A. King p767
Helium speech processor using linear prediction. S.W. Beet and C.C. Goodyear p408
High-resolution digital sinewave generation. J.M. Worley p123
Instantaneous voice period measurement for cochlear stimulation. D.M. Howard and A.J. Fourcin p776
Minimum bandwidth signals with some specified waveform parameters. R. Borge p269
Modification of phase-locked-loop performance using a sample-and-hold circuit. D.V. Thiel and WuXiao Wu p681
Noise reduction in ADPCM AQJ systems using quantiser correction at the receiver. F.S. Yeoh and C.S. Xydeas p420
Performance of DPSK system in impulsive atmospheric radio noise with varying impulse rates and intersymbol interference. V.K. Jain and S.N. Gupta p999
Performance of Karhunen-Loève and discrete cosine transforms for data having widely varying values of intersample correlation coefficient. R.J. Clarke p251
Power spectrum of sampled signals distorted by jitter. B. Szühbator p773
Residually excited LPC processor for enhancing helium speech intelligibility. G. Duncan and M.A. Jack p710
Simple coding scheme for modular arithmetic. B.S. Adiga and P. Shankar p703
Speech recognition on a distributed array processor. P. Simpson and J.B.G. Roberts p1018
Switched-capacitor building blocks for analogue signal processing. F. Maloberti p263
Switched-capacitor second-order noise-shaping coder. G. Lainey, R. Saint-laurens and P. Senn p148
Syndrome-testable internally unate combinational networks. E. Eris and D.M. Miller p637
Systolic array for recursive least-squares minimisation. J.G. McWhirter p729
Systolic processor for computing the Wigner distribution. T.S. Durrani, R. Chapman and T. Willey p476
Two-dimensional synchronisation. J.E. Hershey and R. Yarlagadda p801
Yield enhancement of bit level systolic array chips using fault tolerant techniques. J.V. McCanny and J.G. McWhirter p525

SILICON

Assessment of millimetre-wave Si impatt material. L.A. Hing and J.E. Curran p1091
Carrier lifetimes in silicon epitaxial layers deposited on oxygen-implanted substrates. K. Das, G.P. Shorthouse and J.B. Butcher p139

SIMULATION

Biased Gaussian noise source for digital-transmission-system simulations. P.F. Adams p549
Microprocessor simulation of variable sea conditions. C.K. Li and J.R. Leigh p397
Simulation of GaAs submicron FET with hot-electron injection structure. K. Tomizawa, Y. Awano, N. Hashizume and M. Kawashima p697

SOLAR CELLS

Analysis of efficiency limitations in high-low emitter back surface field silicon solar cells (comment). S.R. Dhariwal and R. Gadre d103
Determination of minority carrier lifetime and effective back surface recombination velocity in BSF silicon solar cells from transient mearsurements. S.C. Jain, S.K. Agarwal and U.C. Ray p365
Polycrystalline silicon sheets for solar cells by improved spinning method. Y. Maeda, T. Yokoyama and I. Hide p441
Proposing a new backward solar cell. K.K. Govil p395

SPECTROSCOPY

Study of deep level in bulk P-InP by admittance spectroscopy. J.M. Kuo and F.A. Thiel p41

SPEECH PROCESSING

Helium speech processor using linear prediction. S.W. Beet and C.C. Goodyear p408
Instantaneous voice period measurement for cochlear stimulation. D.M. Howard and A.J. Fourcin p776
Noise reduction in ADPCM AQJ systems using quantiser correction at the receiver. F.S. Yeoh and C.S. Xydeas p420

SPEECH RECOGNITION

Speech recognition on a distributed array processor. P. Simpson and J.B.G. Roberts p1018

SPUTTERING

Use of a sputtered SiO_2 coating for surface protection during 'leaky tube' diffusion of Zn into GaAs. J.L. Edwards and R.J. Roedel p962

STABILITY

Experimental investigation of stability properties for a semiconductor laser with optical feedback. J.H. Osmundsen, B. Tromborg and H. Olesen p1068
Improved Padé approximants using stability equation method. J. Pal p426

STRIPLINES AND STRIPLINE COMPONENTS

Excitation of multimode guide by stripline-fed slots. B.N. Das and A. Biswas e309

SURFACE ACOUSTIC WAVES

Attenuation measurements of leaky waves by the acoustic line-focus beam. J. Kushibiki, Y. Matsumoto and N. Chubachi p512
Efficient SAW convolver with 30 μs integration time. M.F. Lewis and C.L. West p413
Multimode interference mechanism in V(z) curves obtained by acoustic line-focus beam. J. Kushibiki, K. Horii and N. Chubachi p359
Nondestructive film thickness measurement on industrial diamond. R.D. Weglein e74
SAW convolvers using the transverse-horizontal bilinear field. T. Monks, E.G.S. Paige and R.C. Woods p466
Velocity measurement of multiple leaky waves on germanium by line-focus-beam acoustic microscope using FFT. J. Kushibiki, K. Horii and N. Chubachi p404

SURFACE-ACOUSTIC-WAVE DEVICES

1·03 GHz operation of a low-loss SAW filter using 3-phase unidirectional transducers with thin dielectric layered feed electrodes. J.K. Gautam, T. Meguro and K. Yamanouchi p1042
Group-type unidirectional SAW devices employing intratransducer reflector banks. M.F. Lewis p1085
Jitter accumulation with SAW timing extraction at 325 Mbaud. S.D. Walker, R.B.P. Carpenter and P. Cochrane p193
Miniature 90 MHz low-loss narrowband SAW filter using new resonant configuration. M. Hikita, T. Tabuchi, H. Kojima and Y. Kinoshita p944
Self resonant IDT as a grating reflector of surface acoustic waves. J.P. Agrawal, P. Sudhakar and A.B. Bhattacharyya p982
Surface-acoustic waves bandpass filters on ZnO/Pyrex substrate with zero temperature coefficient. P. Defranould p823

SWITCHED CAPACITOR FILTERS

Exact design of strays-insensitive switched-capacitor highpass ladder filters. R.B. Datar and A.S. Sedra p1010
Noise-cancelling switched-capacitor (SC) filtering technique. K.K.K. Lam and M.A. Copeland p810
Novel stray-insensitive SC bandpass filter. P.V. AnandaMohan, V. Ramachandran and M.N.S. Swamy p615
Stability test for switched-capacitor filters. J. Taylor p89
Switched-capacitor digital multiplier. K. Watanabe and G.C. Temes p33
Terminations for component-simulation-type S C ladder filters. P.V. AnandaMohan, V. Ramachandran and M.N.S. Swamy p29

SWITCHED CAPACITOR NETWORKS

Analysis of SC networks using continuous-time four-port equivalents. P.V. Ananda Mohan, V. Ramachandran and M.N.S. Swamy p1094
Direct- and image-frequency transfer functions of time-variant switched-capacitor networks. P. Lutz and H. Weinrichter p354
SC integrator for high-frequency applications. G. Fischer and G.S. Moschytz p495
Stray-insensitive switched-capacitor-network realisation for voltage transfer functions. G. Kabuli and F. Anday p60

SWITCHING AND SWITCHING CIRCUITS

Noninverting parasitic-compensated bilinear SC integrator with only one amplifier. S. Eriksson and H. Akhlaghi p450
Optimum control of packet switching networks. J.M. Selga p794
Parasitics-compensated building blocks for switched-capacitor filters. T. Inoue and F. Ueno p970

SYNCHRONISATION

Buffers with stochastic output interruptions. H.L. Bruneel p735
Performance of FH-MFSK cellular mobile radio in the presence of nonsynchronous users. R. Agusti-Comes, F. Casadevall-Palacio and G. Junyent-Giralt p1077
Two-dimensional synchronisation. J.E. Hershey and R. Yarlagadda p801

SYSTEM THEORY

Efficient algorithm for reduction by continued-fraction expansion about $s = 0$ and $s = a$. T.N. Lucas p991

TELECOMMUNICATION

Concept of multport-coupling beam-switching network and its basic performance in K-band. M. Kawai, K. Suzuki and S. Egami p990
Digital radio outage prediction with space diversity. J.C. Campbell p1003
Diversity advantage for cordless telephones. A.J. Motley and S.E. Alexander p531
Performance of FH-MFSK cellular mobile radio in the presence of nonsynchronous users. R. Agusti-Comes, F. Casadevall-Palacio and G. Junyent-Giralt p1077
Real-time feature-extraction architecture for moving-picture transmission over telephone lines. S. Mizuno, D.E. Pearson and J.A. Robinson p949
Structure of spatio-temporal prefilters for conditional-replenishment video coders. D.I. Crawford and D.E. Pearson p55

THRESHOLD LOGIC

Canonical extremal vertices of a switching function and its dual. A.K. Sarje p603
Experimental realisation of a full adder by substrate fed threshold logic structure. C.H. Han and C.K. Kim p613

TRANSDUCERS

1·03 GHz operation of a low-loss SAW filter using 3-phase unidirectional transducers with thin dielectric layered feed electrodes. J.K. Gautam, T. Meguro and K. Yamanouchi p1042
Group-type unidirectional SAW devices employing intratransducer reflector banks. M.F. Lewis p1085
Improved feed network for group-type unidirectional transducers. G. Macchiarella and G. Viola p680

TRANSFER FUNCTIONS

Estimation of minimum-phase impulse responses. D.G.W. Ingram and F. Takawira p946
Fitting of a weighted Gaussian lowpass filter to the transfer function of graded-index fibres to reduce bandwidth ambiguities. D. Schicketanz p650
Frequency-domain identification of transmission-zero locations of linear multivariable plants. B. Porter and A.H. Jones p258
Linear system reduction by continued-fraction expansion about $s = 0$ and $s = a$ alternately. T.N. Lucas p244
Matrix partial-fraction expansion method. J. Leyva-Ramos and E.D. Denman p99

TRANSFORMS

Application of sine transform in image processing. R.J. Clarke p490
Family of order-4 four-level orthogonal transforms. W.K. Cham p869
Performance of Karhunen-Loève and discrete cosine transforms for data having widely varying values of intersample correlation coefficient. R.J. Clarke p251

TRANSISTORS

(GaAl)As/GaAs heterojunction bipolar transistors with graded composition in the base. D.L. Miller, P.M. Asbeck, R.J. Anderson and F.H. Eisen p367
Bipolar transistor with graded band-gap-base. J.R. Hayes, F. Capasso, A.C. Gossard, R.J. Malik and W. Wiegmann p410
Modifications to MOS transistor model CASMOS for increased accuracy of DC simulations of heavily channel-doped n-MOS devices. M.P. Brassington and C.N. Duckworth p447
PMOS transistors fabricated in large-area laser-crystallised Si on silica. D. Herbst, M.A. Bösch, R.A. Lemons, S.K. Tewksbury and T.R. Harrison p12
Relationships for the drift and diffusion components of the drain current in an MOS transistor. C. Turchetti p960

TRANSMISSION LINES

Desktop computer appraisal of potential slow-wave propagation characteristics for Schottky coplanar lines. C. Seguinot, P. Kennis and P. Pribetich p1065
Dispersion characteristics of asymmetric coupled slot lines on dielectric substrates. M. Kitlinski and B. Janiczak p91
Step response of lossless parabolic transmission line. H. Curtins, J.J. Max and A.V. Shah p755

TRANSPORT PROCESSES

Carrier lifetimes in silicon epitaxial layers deposited on oxygen-implanted substrates. K. Das, G.P. Shorthouse and J.B. Butcher p139

ULTRASONICS

1·03 GHz operation of a low-loss SAW filter using 3-phase unidirectional transducers with thin dielectric layered feed electrodes. J.K. Gautam, T. Meguro and K. Yamanouchi p1042
Behaviour of device structures based on IDT-launched bulk acoustic waves in a parallel-sided plate of lithium niobate. P.D. Bloch, N.G. Doe and E.G.S. Paige p871
Group-type unidirectional SAW devices employing intratransducer reflector banks. M.F. Lewis p1085

Improved feed network for group-type unidirectional transducers. G. Macchiarella and G. Viola p680
Low-loss unidirectional SAW filters using integrated microinductors. J.K. Gautam, T. Meguro and K. Yamanouchi p858
Miniature 90 MHz low-loss narrowband SAW filter using new resonant configuration. M. Hikita, T. Tabuchi, H. Kojima and Y. Kinoshita p944
New phase-shifting technique for group-type unidirectional transducers used in surface-acoustic-wave filters. K. Yamanouchi, J.K. Gautam and T. Meguro p168
Nondestructive SAW material attenuation via acoustic microscopy. R.D. Weglein p1023
Pulse compression acoustic microscopy at 750 MHz. M. Nikoonahad, G.Q. Yue and E.A. Ash p782
Self resonant IDT as a grating reflector of surface acoustic waves. J.P. Agrawal, P. Sudhakar and A.B. Bhattacharyya p982
Suppression of bulk modes in SAW transversal filters by gold transducers. L. Bickers p121
Surface-acoustic waves bandpass filters on ZnO/Pyrex substrate with zero temperature coefficient. P. Defranould p823
Temperature stability of surface-generated bulk waves. M. Goodberlet, D.L. Lee and J.F. Vetelino p740

VAPOUR DEPOSITION

Structure of GaAs-$Ga_{1-x}Al_xAs$ superlattices grown by metal-organic chemical vapour deposition. R.J.M. Griffiths, N.G. Chew, A.G. Cullis and G.C. Joyce p988

VIDEO

Structure of spatio-temporal prefilters for conditional-replenishment video coders. D.I. Crawford and D.E. Pearson p55

WAVE PROPAGATION

Desktop computer appraisal of potential slow-wave propagation characteristics for Schottky coplanar lines. C. Seguinot, P. Kennis and P. Pribetich p1065
Nonreciprocal HF signal transmission by surface helicon. G. Ruibys and R. Tolutis p273

WAVEGUIDE ANTENNAS

Waveguide slot antenna with a coupled dipole above the slot. Yong-Hee Lee, Dong-Hee Hong and Jung-Woong Ra p280

WAVEGUIDES

TE_0-TM_0 mode degeneracy in anisotropic waveguides with nonsymmetric isotropic claddings. P.S. Chung and K.S. Chiang p45
10 Ghz active mode-locking of a 1.3 μm ridge-waveguide laser in an optical-fibre cavity. R.S. Tucker, G. Eisenstein and I.P. Kaminow p552
Accurate analysis of the abrupt discontinuity in a dielectric waveguide. T. Takenaka and O. Fukumitsu p806
Complex waves on shielded lossless rectangular dielectric image guide. U. Crombach p557
Crosstalk characteristics of lens-like Ti-$LiNbO_3$ intersecting channel waveguides. C.T. Lee p805
Degeneracy conditions in anisotropic waveguides with isotropic claddings. P.S. Chung and K.S. Chiang p220
Determination of admittance of coaxial line/rectangular-waveguide junction. M.E. Bialkowski and P.J. Khan p832
Dielectric image line leaky wave antenna for broadside radiation. K. Solbach and B. Adelseck p640
Equivalence between circular and rectangular posts in guiding structures. M.E. Bialkowski and P.J. Khan p726
Fabrication of SiO_2-TiO_2 glass planar optical waveguides by flame hydrolysis deposition. M. Kawachi, M. Yasu and T. Edahiro p583
Fundamental mode waveguide at submillimetre wavelengths. A.R. Gillespie and A. Schulz p440
GaInAsP/InP buried-heterostructure optical waveguides at a 1.5 μm wavelength. O. Mikami, H. Nakagome and T. Saitoh p593
Integrated optical polariser on $LiNbO_3$: Ti channel waveguides using proton exchange. M. Papuchon and S. Vatoux p612
Ka-band Y-circulators in integrated waveguide technology. C. Schieblich and J.H. Hinken p665
Long-wavelength Ti-$LiNbO_3$ waveguide electro-optic TE$\leftrightarrow$TM convertor. R.C. Alferness and L.L. Buhl p40
Loss reduction in curved dielectric optical slab waveguide. M. Geshiro and S. Sawa p321
Low threshold ridge waveguide laser at 1·55 μm. I.P. Kaminow, L.W. Stulz, J.-S. Ko, B.I. Miller, R.D. Feldman, J.C. De Winter and M.A. Pollack p877
New dielectric waveguide structure for millimetre-wave optical control. K. Ogusu p253
New method for producing and mounting barretter elements for power measurement in waveguides. L.D. Hill p352
Optical losses in metal/SiO_2-clad Ti: $LiNbO_3$ waveguides. L.L. Buhl p659
Parameters of coplanar waveguides with lower ground plane. G. Ghione and C. Naldi p734
Passive optical GaInAsP/InP waveguides. C. Bornholdt, W. Döldissen, D. Franke, N. Grote, J. Krauser, U. Niggebrügge, H.P. Nolting, M. Schlak and I. Tiedke p81
Propagation mechanisms in quadruple-clad fibres: mode coupling, dispersion, pure bend losses. P.L. Francois p885
Proton-exchanged optical waveguides in Y-cut lithium niobate. M. Goodwin and C. Stewart p223
Radiation characteristics of coaxial waveguides as a small primary feed. L. Shafai, A.A. Kishk and A. Ittipiboon p623
Radiation losses of E-plane groove-guide bends. J. Meissner p527
Slow-wave propagation on MIS periodic coplanar waveguide. Y. Fukuoka and T. Itoh p37
Solid-state devices in H-guide, groove guide and fence guide. F.A. Benson, P.A. Cudd and F.J. Tischer p657
TE_{11}modes in straight and curved circular waveguide with 'deformed' cross-section. F. Jecko, N. Penaud and A. Papiernik p382
Theory of integrated-optic diffraction gratings in low Δ waveguides. M.G.F. Wilson and S.W. Chan Wong p943
Three-dimensional higher-order mode analysis of transition from waveguide to shielded dielectric image line. J. Strube and F. Arndt p306
Use of far-field radiation pattern to characterise single-mode symmetric slab waveguides. A.C. Boucouvalas p120